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New Tariff Bill Under Discussion

Is Not Expected To Be Passed by the House at Earliest Before June 1—Representative Treadway of Massachusetts of the Ways and Means Committee Tells Why It Was Decided To Make No Change in Standard News Print and Explains The Action Taken In General On The Paper Schedule

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 15, 1929.—Discussion on the tariff bill is well under way in the House of Representatives. Those who have been following tariff matters closely for years are not very hopeful that the bill will be passed by the House at the earliest before June 1.

Representative Allen T. Treadway, of Massachusetts, ranking Republican member of the Ways and Means Committee which drafted the bill and member of the subcommittee on the paper schedule had the following to say in connection with the paper rates:

"The paper schedule shows many improvements in language and administrative features, brought about by the cooperation of the American Paper & Pulp Association and its import committee, which has given careful consideration to the matter of evasion of the tariff law.

"It was decided to make no change in connection with standard news print paper, which is now on the free list. This grade of paper can also be used for other purposes than for the printing of newspapers, and news print so used will also be admitted free of duty.

"The investigation of the committee determined that this was the intent of Congress when news print was placed on the free list.

"A paragraph has been added caring for papeteries with a rate of duty of 40 per cent.

"An important addition to the present law has to do with the print or brown print and plain basic paper, the rate on unsensitized paper being 20 per cent and on sensitized paper 25 per cent.

"Rates in the paper schedule have been maintained, and in many of the specialties they have been increased."

The Ways and Means Committee in its report to the House on the tariff bill had the following to say on schedule 14, papers and books:

The paper industry is prosperous. It is a large exporting industry. It employs much skilled labor and pays reasonable wages. Tariff changes required are few, and they relate to certain kinds of paper and certain specialties in production.

Due to placing of standard news print on the free list and the use of it for a growing variety of purposes other than the manufacture of newspapers, and also because of the fear that the newspapers and others may stretch the term "standard news print" beyond the intent of Congress and create a large twilight zone of nondutiable paper, the "book-paper" producers who manufacture all other kinds of paper except news print, have wished for a scientific formula in the tariff act, defining news print closely and laying a duty upon all other kinds of paper. Such a formula is in substance in use by the Customs Service and may readily be improved upon administratively, and therefore it has seemed to the committee that a stated formula in the act is not necessary. A request was made at the hearings for a definition of "standard news print" paper which would limit its nondutiable use to the manufacturer of newspapers. The present law is not construed or administered in this limited sense by the Customs Service. Also it appears that much standard news print has long been used for purposes other than newspaper manufacture, and neither the debates, the reports, nor the proceedings in connection with the adoption of the free-list provision indicate any definite purpose closely to limit its use to newspaper manufacture. It is important, however, that care should be exercised by the Customs Service that there be no encroachment upon the intent of Congress with respect to the actual meaning of "standard news print" at the time it was placed on the free list.

Paragraph 1401 has been changed so as to provide specifically for uncoated book or printing papers. Coated papers, because they have undergone a secondary process and have therefore incurred an additional cost in their production, are especially provided for in paragraph 1405. The rate of duty in the tariff act of 1922 remains unaltered.

Only one change of importance is made in paragraph 1402. Pulpwood in rolls for the manufacture of wall board has been coming in at a lower rate of duty than pulpboard in other forms. There seems to be no good reason for this and so all users of pulpboard are in this bill put upon the same basis. The line of demarcation between paper and paper board has been raised from nine to twelve one-thousandths of an inch, to conform more nearly to trade usage.

In paragraph 1404 a reasonable increase of duty has been granted upon the tissue papers of exceptional thinness. The imports of the very thin tissues, such as condenser paper used in the electrical and radio industries, are giving domestic manufacturers keen competition, and the rapidly increasing use of these papers furnishes a fair field for American enterprise.

In paragraph 1405 there are slight increases on the lighter-weight decorative papers and on the simplex decalcomania papers, in line with the curve of importations. The manufacture of simplex decalcomania paper is a relatively new industry in the United States and the paper is produced by few mills. The imports are

(Continued on page 68)

More Canadian News Print Mergers Anticipated

Official Announcement Expected Shortly of Consolidation of Mills Under Control of Dominion Securities Corp., Including Lake St. John Power & Paper Co., St. Lawrence Paper Mills and Brompton Pulp & Paper Co.—Canada Power & Paper Co. Rumors

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., May 13, 1929.—Investors interested in pulp and paper securities here are daily expecting official announcements in regard to the long-talked-of mergers. While the executives of the various companies are giving out no information whatever, confidence is such that there really appears to be good ground for some at least of the anticipations. It is now thought that in all probability the lead in official announcements will be taken in regard to mills under the control of the Dominion Securities Corporation, of Montreal, these including the Lake St. John Power and Paper Company, St. Lawrence Paper Mills, and the Brompton Pulp and Paper Company. The capacity of these three mills for the production of news print is 743 tons, made up as follows: Brompton, 218; Lake St. John, 220; St. Lawrence, 305. The latter company's plans provide for an increase of 160 tons.

Then arrangements are said to have been initiated for bringing the Wayagamack Pulp and Paper Company into the Canada Power and Paper organization, an offering of $125 per share, it is said, having been made to Wayagamack. The Canada Power and Paper group now have a combined capacity of 1,200 tons per day and Wayagamack's capacity is 170 tons per day, with large production of kraft and other products.

The Beauharnois Power Project

R. O. Sweezey, who for years has been prominent in pulp and paper circles, and who is now vice-president of the Beauharnois Light, Heat and Power Company, gave the first public address on the Beauharnois project a few days ago before the Canadian Manufacturers Association in Montreal. He announced that preliminary work would be started this summer on the huge project, which will result in a development of 500,000 h.p. on the St. Lawrence River a few miles above Montreal. He said the Province of Quebec expects ultimately to receive an annual revenue and royalty from the company of $550,000. In addition the company will provide the Dominion with a navigation canal at a cost of $16,000,000, and the annual charges on this will amount to $1,000,000. Therefore the rentals, and the annual charges on the capital cost of the canal, would involve an ultimate annual disbursement of $1,500,000, this of course being when the full 500,000 h.p. to be developed was sold.

The canal, he said, would be 14 miles long, 600 feet wide at the bottom, with a minimum depth of 27 feet, having the permanent structures 30 feet below the surface. This canal would link the eastern end of Lake St. Francis with the western end of Lake St. Louis, and the full head of water of 83 feet would be utilized. The project would involve an expenditure of at least $65,000,000, and to reduce interest charges on this large amount during construction, the work will be pushed through to completion with the utmost rapidity. It was expected that it would be completed in 1932.

Regarding the marketing of the power he said no unfriendly tactics toward other producers would be adopted, and this would only be to the injury of all, with ultimate poor service and higher rates to the consumers. He added:

"Our one and only objective is to construct the development as rapidly as possible and later to sell power on as low a cost basis as our construction costs will permit.

"Frankly, the market for the output has little bearing on the merits of the project, for we are confident that a market for the power exists.

"It was literally only a year or two ago that the power needs of this province were served very largely by the Shawinigan Water and Power, with a development of 500,000 h.p.

"Since then, the Duke-Price power plant has produced 500,000 h.p. and the International Paper Company has developed another 600,000 h.p. on the Gatineau. This gives some indication of the manner in which the demand grows.

"The Beauharnois corporation has already aligned interests which will absorb large blocks of power. But no contracts have yet been signed. For obvious reasons it is impossible to indicate to you yet just where a large proportion of the output will be sold.

"As Southern Ontario is undoubtedly facing, or will face a shortage of hydro power, it is more than possible that the corporation may take advantage of the rapport established between the two provincial governments touching the production of power on the Quebec sections of the St. Lawrence.

"Beauharnois has other potential users of power. At the moment several groups are considering the establishment of large scale smelters in Eastern Canada. The projects would all be large purchasers of power.

"Another—and a vital feature of the project—is the fact that amongst the many power plants in this country, the largest proportion are situated far from the centers of population and industrial development.

"Beauharnois, therefore, is founded on the firm economic basis of low cost power, located but 25 miles from tide-water navigation and close to the largest center of population in the Dominion. Can then, a satisfactory market for the output be doubted?

"I do not want to go on record as a prophet. I do not know what industrial development will result following the completion of our 500,000 h.p. undertaking. But I can perhaps indicate what is likely to transpire in the districts tributary to our plant by reminding you of what has taken place on the Saguenay following the half a million horsepower of the Duke-Price Power. These results, industrially, socially and from a population angle need not, I believe, be enlarged upon."

He further stated that the company was controlled by a group of Canadians, and that control would remain in identically the same hands as at present.

Technical Section's Summer Meeting

The Summer Meeting of the Canadian Pulp and Paper Association will be held on June 18, 19 and 20. Present plans call for assembly at Montreal on Monday June 17 and leaving for Three Rivers by special sleepers that evening.

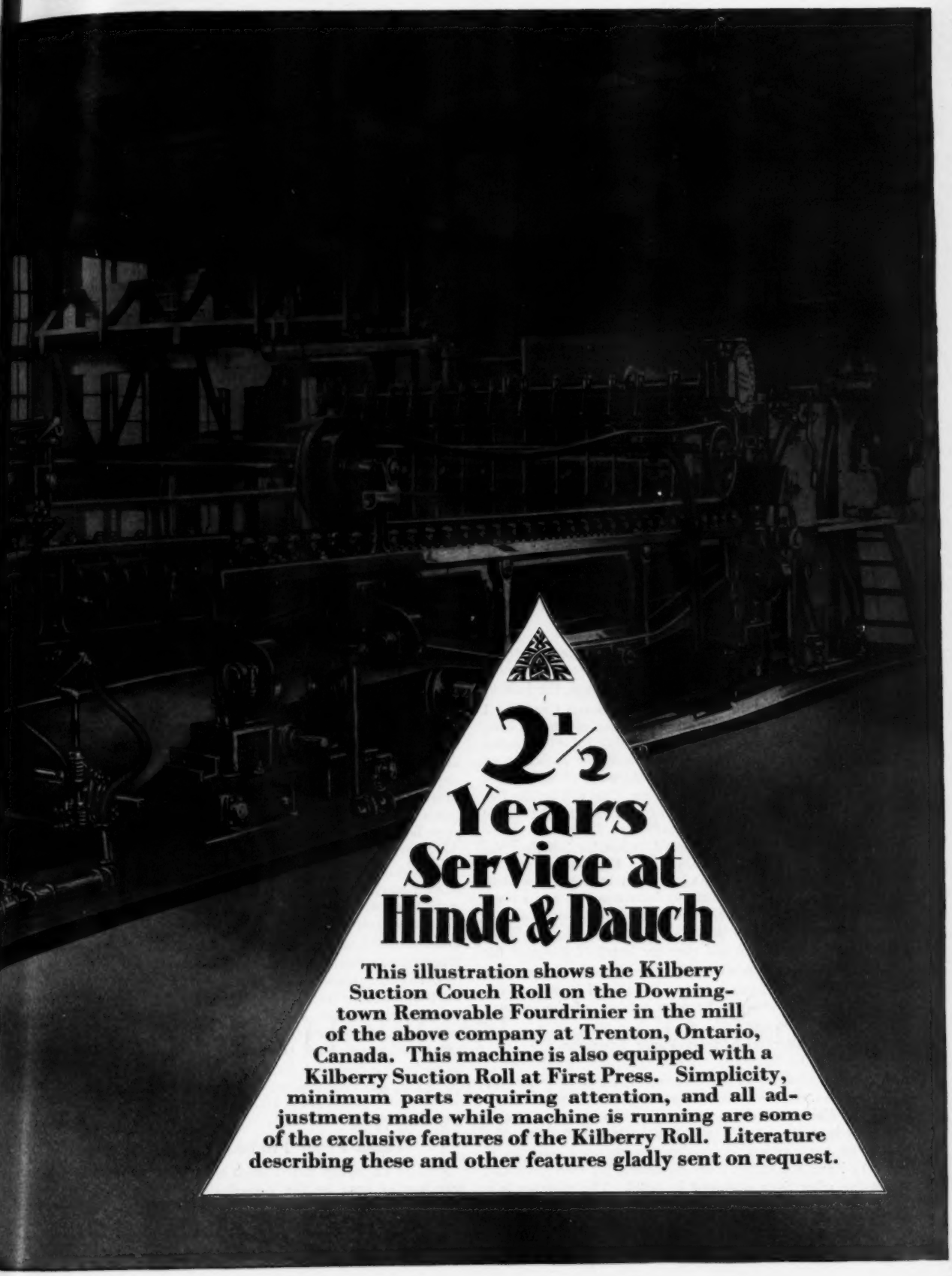
Tuesday, June 18, will be spent in Three Rivers where, by the courtesy of the various companies, members will be able to visit the mills of the Canadian International Paper Company; St. Lawrence Paper Mills, and the Wayagamack Pulp and Paper Company.

Wednesday, June 19, in Quebec. Two sessions of the section will be held, morning and afternoon. Luncheon and dinner at the Chateau Frontenac.

Thursday, June 20, arrangements have been made for a visit to the mills of the Anglo-Canadian Pulp and Paper Mills and the St. Anne Mill of the Abitibi Power and Paper Company.

Freight Rates on News Print

The third hearing of the investigation into freight rates on news print, known as I. C. C. Docket 21095, is called for Minneapolis, today, May 13. Guy Tombs and A. S. Kirk left Montreal, Saturday night, the 11th, to look after the interests of the Eastern Canadian mills.



2½ Years Service at Hinde & Dauch

This illustration shows the Kilberry Suction Couch Roll on the Downingtown Removable Fourdrinier in the mill of the above company at Trenton, Ontario, Canada. This machine is also equipped with a Kilberry Suction Roll at First Press. Simplicity, minimum parts requiring attention, and all adjustments made while machine is running are some of the exclusive features of the Kilberry Roll. Literature describing these and other features gladly sent on request.

Demand for Paper Improves Slightly in Chicago

Ground Wood Papers In Better Request Than of Late, With Prices Steadier, Despite Over-Production—Bonds, Ledgers, Writing and Coated Papers Continue to Move In Satisfactory Volume—Paper Board Situation Practically Unchanged As Far As Prices Go

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., May 13, 1929.—The somewhat pessimistic tone of the market in ground wood papers in and around the Chicago district took a turn for the better during the past week according to reports from various sources. The continued overproduction in the cheaper grades of paper was taken up to a noticeable degree by orders which, coupled with excellent salesmanship, seemed to indicate some improvement.

Bonds, ledgers, coated papers, and the higher priced lines, including writing papers, continued their pace setting proclivities and went on toward the termination of the second quarter of the year in a fashion that almost assures a favorable comparison over the same period of 1928.

Publicity given to news print prices, etc., is said to be passing the market itself without any very noticeable effects. The board market still faces that perplexing problem which reveals plenty of business but unsatisfactory conditions as far as prices go. Some changes in chip board are noted in the Chicago quotations.

Paperboard Convention Arrangements

An effort to interest all manufacturers of paper board, containers and folding boxes in trade practice activity characterizes complete plans for the coming Chicago meeting of the Paperboard Industries Association to be held at the Palmer House, Chicago, May 22 and 23. A meeting of the Trade Practice Division Industry Committee at 1:30 p.m. Tuesday, May 21, is expected to prove important in bringing matters of unusual interest before the association as a whole.

With the time for all meetings shown in Chicago daylight saving time the program of the coming meeting as sent out from the association's headquarters in Chicago, is as follows: Wednesday, May 22, Paperboard Industries Association Meetings, the Folding Box Group convening at 10 a. m.; the Paperboard Group at 1 o'clock in the afternoon and the Container Group two hours later.

The Trade Practice sessions are all scheduled for Thursday, May 23, the feature meeting of the day being the gathering of the entire industry from 10 to 12 in the morning, at which time further consideration of the Trade Practice Plan will be the line of business, the report of the board of directors to the Trade Practice Administration being scheduled.

A general meeting of the Paperboard Industries including the three groups, Folding Box, Container and Paperboard, will be held Thursday afternoon, May 23. A noon luncheon preceding this joint meeting is to be attended by both members and guests.

Preceding the above meetings, all to be held in the Red Lacquer Room of the Palmer House the three Trade Practice Divisions will meet Tuesday afternoon and elect the board of directors for the Trade Practice Division who will immediately have a meeting to form an ofganization, full report of which will be transmitted at the group meetings and at the mass meeting of the industry on Thursday morning, May 23.

Ed. Shaffer to Address Paper Salesmen

Ed Shaffer, of the Mississquoy Paper Company, is expected to prove a feature attraction of the Salesmen's Association speaking program and an unusually large audience of paper salesmen identified with the Chicago Division are expected to be on hand this afternoon to hear Mr. Shaffer talk on Bristols and then turn the meeting over into a general discussion whereby each salesman is expected to learn something from discussing his own lines and from hearing other lines explained in detail. The program is a part of the association's plan to broaden the general and specific education to be achieved by both general discussions and by the talks of men well known in various lines of the paper industry.

Dr. George Craig Stewart, of Evanston, chaplain of the National Salesmen's Association of the Paper Industry, will deliver his annual interesting address at the May 20 meeting.

Chicago Paper Association Plans

The Chicago Paper Association is holding an extremely important meeting on Tuesday evening, May 14, at the Bismarck Hotel according to Leo Altholz, president. While the nature of the program could not be divulged at this time Mr. Altholz affirmed that the results of the meeting would be unusually important. Another feature of the session, which will be divided into two groups according to whether members serve the jobbing and miscellaneous or the industrial trade, will be the first report of the golf and outing committee which is expected to bring news of the first outing to the membership.

Important Advertising Conference

Executives of many of the country's largest commercial organizations will meet at the Palmer House, Chicago, May 14, 15 and 16 at an impressive gathering sponsored by the International Advertising Association. The main objective of the convention, which will probably be the most important gathering ever staged by the advertising fraternity, is to ascertain through discussion and conference, the economic value of fact-finding or research as an approach to advertising. Prominent among the list of speakers are Dr. Julius Klein, assistant secretary of commerce; Harold Moulton, president of the Brookings Institute; Walter A. Strong, publisher of the Chicago *Daily News*, and Prof. E. K. Strong, Leland Stanford University.

Among the allied groups which will meet here are the Agricultural Publishers Association and the Direct Mail Advertising Association. Among those heading the various convention committees are Ben C. Pittsford, Ben C. Pittsford Company; F. W. Bond, F. W. Bond Company; Robert G. Marshall, Robert G. Marshall Letter Company, and H. W. Blakeslee, Bureau of Advertising. A number of prominent paper men are expected in Chicago to attend the three day meetings and the interest of the entire paper industry is centered on this convention which may prove a decided stimulus to the advertising business resulting in more business for the paper trade.

Frank Haggerty Now Paper Mill Agent

Several readers of this section evidently drew a wrong inference from a story written April 22 on the retirement of Frank Haggerty from active duty with the Combined Locks Paper Company. The story continued—"will devote his time to some new lines of work." A few paper men construed the sentence to mean that Mr. Haggerty was leaving the paper industry. That inference is incorrect, however, inasmuch as Mr. Haggerty continues to be very much in the paper trade having formed an organization of his own together with his son, Frank J. Haggerty, Jr. Mr. Haggerty and his son are now paper mill agents with offices at 327 South LaSalle street, Chicago, and are giving their many acquaintances an invitation to visit their new headquarters where they are equipped to quote on paper requirements of all kinds. The telephone number of the new organization is Harrison 5443.

Waxed Paper Products Co. Incorporates

Articles of incorporation have been filed with the Nebraska secretary of state by the Waxed Paper Products Company of Omaha, Neb. Capital stock is listed at $300,000. The principal business of the corporation will be the manufacture of paper and paper products.

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NEW YORK CITY

Paper Demand Moderately Favorable in Boston

Fine Paper Market Is Exhibiting Fairly Strong Undertone, With Dealers Generally Reporting Business Irregular to Good—Some Improvement Noticed In Coarse Paper Situation, With Prices Ruling Somewhat Firmer—Box Board Situation Unchanged

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., May 13, 1929.—The paper market here is in a moderately favorable condition. Fine papers are generally strong, with dealers reporting business as fair to good. Some are very busy. Kraft tends to advance, particularly in the No. 2 grade. With at least one firm, the volume of business is slightly ahead of that of a year ago at this time.

There is practically no change in the box board situation, as far as prices are concerned. A fair volume of sales has been made, with chip board moving at a minimum of $35 and news board at a minimum of $37.50. The matter of an extra charge for single ton lots of board shipped in a car to consumers is being thrashed out by board manufacturers. Some manufacturers object to sending a ton lot in a car without charging $2 extra. On the other hand, some mills do not make an extra charge.

The market for old papers is reported by some as extremely quiet, while others have been having a fair demand. Quotations on No. 1 mixed paper have been marked down from a range of .50 @ .52½ to that of .47½ @ .50 and on old newspapers from .55 to a range of .50 @ .52½. Gunny bagging is expected to be in better demand, particularly the foreign stock, because of an expected textile strike in England. The price has advanced from 1.60 to 1.75.

There is a steady demand for rags. A movement is noted in old black stockings. A carload has been bought recently at 3.50 and the quotation now is firm at 4.00. The twine market is generally firm. Sisal is steady, although cotton is a bit weaker.

New England Paper Men Meet

The meeting of the New England Paper Merchants Association at New Haven May 7 and 8 was both interesting and enjoyable. The program began at the Hotel Taft at 6.30 Tuesday evening, with a banquet and a welcome by Mayor Thomas A. Tully. At the business meeting, at which President Arthur E. Ham presided, remarks were made by K. S. Warner, vice president of the National Paper Trade Association (Fine Paper Division); A. F. Chamberlain, assistant secretary of the National Paper Trade Association; Frank E. Floyd, executive secretary of the National Paper Trade Association; an address by Professor Fred. Fairchild, of the Economics Department of Yale; remarks by A. W. Blackman, vice president, National Paper Trade Association (Wrapping Paper Division), and Charles A. Esty, New England Paper Merchants Association, representative to the National association. The Taft Orchestra and the Yale Quartette rendered enjoyable selections.

On Wednesday members participated in a medal play eighteen hole handicap golf tournament in progress all day at the Race Brook Country Club. Prizes were won by the following: First gross, W. N. Stetson, Jr.; second gross, G. L. Webb; first net, F. H. Merrill; second net, Graham Blandy, 2d; kickers, G. I. Shaffer. Handicaps and match were under the efficient management of a committee consisting of Messrs. Webbs, Shaffer and Swanson. A luncheon was served at the club whose dining rooms and verandas overlook the beautiful courses. A good number attended, the Boston, Springfield, Worcester and Hartford members going in a special car.

News of the Trade

The Stone & Andrew Company is stocking Canterbury Announcement, one of the Dill & Collins products, which is carried in the Countess size in all colors at the Boston warehouse. This paper is very distinctive in character and charm. The company also furnishes the flat sheets in all colors. D & C Suede Laid Tints are being handled by the Stone & Andrew Company, which is distributing sample books of this paper. The colors are melon, buff, peach, apple green and light blue.

The Storrs & Bement Company is planning a sales meeting Friday evening, May 24. A. F. Mackay, of the Dexter Folder Company, who spoke last year on "Folding," is to give a talk. Alfred Vose, of the Vose-Swain Engraving Company, Boston, is to talk on "Steel and Copper Engraving." J. H. Brewer, general manager of the Storrs & Bement Company, is asking salesmen to submit to him questions pertaining to the die stamping and engraving business. From these Mr. Brewer will prepare a list on which Mr. Vose will base his talk.

R. K. Vaughan, salesman for the Storrs & Bement Company, left Wednesday, May 7, to take seven of his customers for a two days' visit to the plant of the S. D. Warren Company at Cumberland Mills, Me.

John Carter & Company, Inc., have added to their stock of fine papers Old Hampden Bond, made by the Parsons Paper Company, Holyoke, Mass.

Max Frank, for many years buyer for John Carter & Company, Inc., who has been ill since January 1, was forced to submit to an amputation of one leg below the knee. At last reports his condition was as good as could be expected.

Col. Edgar Smalley, managing director of Edwin Butterworth & Co., Ltd., Manchester, Eng., is making his annual visit to this country for a month, with his headquarters at the office of E. Butterworth & Co., Inc.

The E. P. Lawson Company, manufacturer of paper cutters and stitchers, is reported to be doing a good business.

Mrs. Walter M. Pratt, wife of Colonel Pratt, of the Pratt Paper Company, was chairman of the flower committee in connection with the drive made Saturday, May 11, under the auspices of the Soldiers and Sailors Club, for the benefit of disabled veterans.

C. A. Crocker and J. E. Holmes, of the Crocker-McElwain Company, Holyoke, Mass., have been calling on the Boston trade.

New Wage and Working Agreement

ALBANY, N. Y., May 13.—In the new wage and working agreement between paper companies and the unions which will be in effect for the next year concessions have been granted to the paper makers in many instances. Announcement was made this week at the local headquarters of the International Brotherhood of Papermakers that the Gilman Paper Company, of Gilman, Vt., had consented to do away with the half hour early start on Monday mornings and had also agreed to give additional kilowatt hours for the lighting of the homes of employes. The new arrangement affects over 700 persons. At Troy the John E. Manning Paper Company and the Behr-Manning Abrasive Company have agreed to a five per cent wage increase in all plants, the establishment of seniority rights with interchange of positions in all plants, and likewise the establishment of a working week which will result in day workers quitting at 10 A. M. on Saturdays with double pay after that hour which really means the establishment of a week of five days and three hours. The company will also give seven holidays with pay and two weeks' vacation with pay. Frank P. Barry, first vice president of the International organization, left during the week for Ottawa to confer with representatives of two large paper manufacturing concerns there in connection with the signing of new agreements. So far this spring there has been absolutely no friction between the companies and the union.

New mill for Warren Manufacturing Co., Bloomsbury, N. J., designed and built by Austin.

Speed and Low Cost in Building

THE new mill for Warren Manufacturing Company, at Bloomsbury, N. J., pictured above, illustrates Austin building service for the paper industry in the East, while a new plant just completed for Union Bag and Paper Company, Vancouver, is a good example of the work Austin is doing on the West Coast.

In the allied industries this organization is equally active. A chemical plant in Louisiana, serving the paper industry, is one of Austin's recent contracts. At Tacoma, Washington, a large chlorine and caustic soda plant has recently been completed for Hooker Electrochemical Co. With headquarters at Niagara Falls, this company decided to build a branch plant in the Northwest to better serve the paper mills in that section.

With a national organization equipped to serve the paper and allied industries on every type of building project, Austin's experience and facilities naturally appeal to executives who want results quickly and at reasonable cost.

Austin will work from your own engineers' plans, or design and construct your plant complete, guaranteeing in advance: 1. Low total cost for the complete project. 2. Completion date within a specified short time. 3. High quality of materials and workmanship throughout.

For approximate costs and other information on any type or size of building project, phone the nearest Austin office, wire, or send the memo below.

THE AUSTIN COMPANY—*Engineers and Builders*—CLEVELAND

New York Chicago Philadelphia Detroit Cincinnati Pittsburgh St. Louis Seattle Portland Phoenix
The Austin Company of California: Los Angeles, Oakland and San Francisco. The Austin Company of Texas: Dallas. The Austin Company of Canada, Ltd.

AUSTIN

Memo to THE AUSTIN COMPANY, Cleveland— We are interested in a .....project containing.....sq. ft. Send me a personal copy of "The Austin Book of Buildings." Individual.....

Firm..... City.....

PTJ 5-16-29

Fox River Valley Safety Conference Plans

Annual Gathering In Interest of Accident Prevention to be Held at Manitowoc, Wis., June 11—Attendance of Approximately 1,200 Mill Executives, Foremen, Superintendents and Others Anticipated—William F. Ashe Has Charge of Paper Mill Group

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., May 13, 1929.—June 11 is the date set for the annual Fox River Valley Safety Conference, the largest gathering of each year in Wisconsin in the interest of accident prevention. It will be held at Manitowoc, Wis., with an attendance of approximately 1,200 mill executives, foremen, superintendents and others.

While the speakers have not been decided upon, efforts will be made to obtain nationally known men who are conversant with safety. The morning sessions will be sectional, with William F. Ashe, of the Thilmany Pulp and Paper Company, Kaukauna, Wis., in charge of the paper mill group.

H. L. Vits, of Manitowoc, Wis., is general chairman of the conference. It is said to be the largest regional safety conference in the United States.

Awards to Kimberly-Clark Workers

With three more important departments coming through for the five dollar safety award customarily allowed, the Kimberly-Clark Corporation, Neenah, Wis., is enjoying a constantly improving safety record. Checks were given out to approximately 225 employes during the last month because the departments operated continuously over a long period of time without a lost time accident.

The largest sum went to the Kotex department of the company's mill at Niagara Falls, N. Y., where approximately 135 workers successfully completed 77,500 safe "man days." The total distribution of cash awards amounted to $682.50. This is the third time since 1924 that this department has collected on this basis. Records show that the number of minor accidents and injuries also is on the decrease.

Seventy-three men on the sulphite crew at the Kimberly, Wis. mill went "over the top" and received their checks. They worked for 424 consecutive days to make good on the record of no lost time accidents. The third group was fifteen employes of the electric and boiler house departments at Neenah, Wis.

Labor Problems Discussed

Paper mill executives were among the speakers at a Catholic conference on industrial problems conducted recently by leaders of the church at Green Bay, Wis. A paper prepared by F. J. Sensenbrenner, president of the Kimberly-Clark Corporation, was read by Stephen R. Stilp, of the company, in the absence of the writer. The paper declared that the machine age has not caused unemployment, nor has it killed the worker's soul, but on the contrary it has enabled the worker to live a fuller life and to enjoy a higher level of prosperity.

Another side of the labor problem was presented by C. E. Jackson, of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis. "All relations between our company and the men are on a strictly business basis," he said. "The men have their services to sell and we buy it from them. We do not, as some employers do, require that subservient vassalage called loyalty. We think the big family idea is nothing but a form of industrial slavery. If a man's services are not what we require, we merely tell him, the same as anyone else, that his goods are not up to standard and if the quality is not improved, we will not be able to use any more of it. We deal with organized labor and have a grievance committee."

Wood Sulphite Course

The second wood sulphite course of the spring has been conducted by the United States Forest Products Laboratory, Madison, Wis. Fifteen men attended, the number to which the class is limited. Those enrolling were: H. M. Halverson, Abitibi Pulp and Paper Company, Smoothrock Falls, Ont.; P. C. Carr, Champion-International Company, Lawrence, Mass.; Russell T. Mann, Cherry River Paper Company, Richwood, Va.; W. C. Prebbanow, Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.; Charles W. Richards, Continental Paper and Bag Mills Corporation, New York City; Walter Wiggett, E. B. Eddy Company, Hull, Quebec; Charles M. Carrier, Great Northern Paper Company, Millinocket, Me.; Donald A. Buchanan, Hawley Pulp and Paper Company, Oregon City, Ore.; A. Edwards, International Paper Company, Livermore Falls, Me.; W. H. Kraske, W. H. Kraske Company, Montellow, Wis.; Nathan Malcove, Marinette and Menominee Paper Company, Marinette, Wis.; W. W. Fitzgerald, Northern Paper Mills, Green Bay, Wis.; C. A. Shirley, Powell River Company, Powell River, B. C.; A. Christensen, Rhinelander Paper Company, Rhinelander, Wis., and Homer F. Ray, Scott Paper Company, Chester, Pa.

News of the Industry

Shipping of coal by boat from Green Bay, Wis., to mills of the Fox River Valley has started. This work was delayed more than a month because of the high water and swift current in the Fox river, but daily trips will be made now by the Fox River Navigation Company, employed in coal shipping for the mills.

The Bergstrom Paper Company, Neenah, Wis., was shut down for twenty-four hours last week following an accident in which Iver Forseth, a fireman, was killed. The man was electrocuted while pulling a switch which operates coal cars to the boiler room It is believed a short circuit caused the switch to be charged Ray Vanderwalker, chief engineer, shut down the entire mill immediately to prevent further accident and damage, and was badly scalded while doing so. He walked into a stream of boiling water. An inspection of the entire machinery was made before operations were resumed.

Lands held for flowage rights by paper mills and power companies are taxable in the political unit where they are located as well as in the city or township where the water power is used, according to a decision of the Wisconsin Supreme Court last week. The Whiting-Plover Paper Company, of Stevens Point, Wis., brought suit against the town of Linwood on this point in order to determine where the taxes should be levied. The company was valued at $35,000, half of which will be assessed in the defendant township.

S. Carter Hall Heads New Company

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., May 11, 1929.—S. Carter Hall, formerly vice president of the Tait Paper and Color Industries, was chosen president and treasurer of the newly organized Carter Hall Company, Inc., at the organization meeting held in this city. John H. Barker, also of Glens Falls, was elected treasurer. The Cities Service Company, which owns a half interest in the new organization, is also represented on the board of directors by Charles H. Foster of Philadelphia, who was elected vice president, and Walter M. Martin, also of Philadelphia, who was named assistant secretary and treasurer. The directors of the company will be Messrs. Hall, Barker and Foster with Andrew McBurney, of Philadelphia. The plant of the firm in this section will be started in a few days on property in South Glens Falls recently purchased from the International Paper Co.

can be installed during week-end shutdown

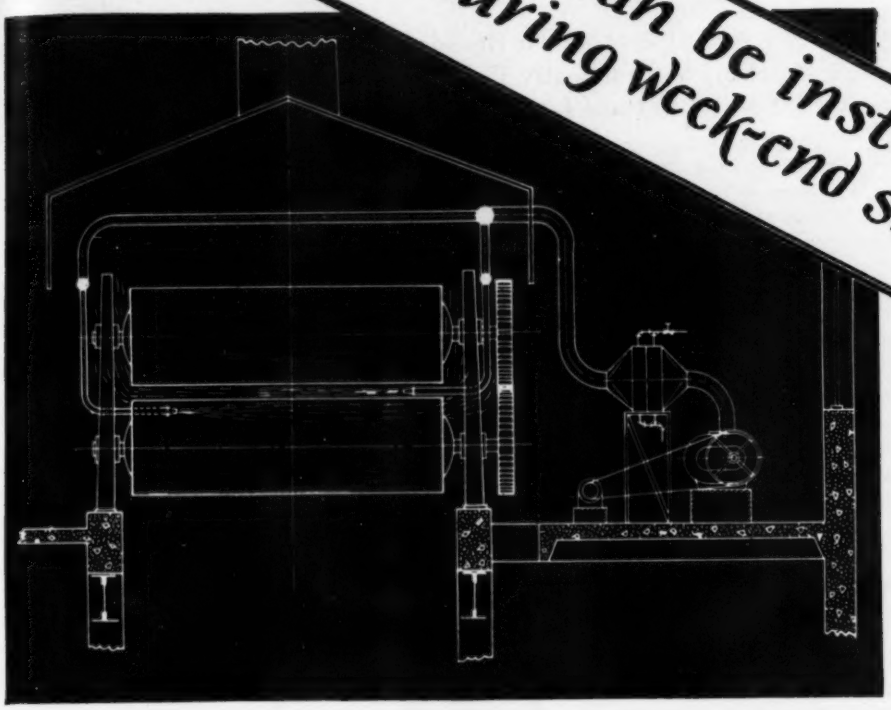


Diagram shows the general arrangement of the Ross-Grewin System. Note how air jets blow into pockets from each side of machine producing even drying.

ROSS-GREWIN High Pressure System

It is not even necessary to sacrifice an hour of production in order to secure the better drying, increased production, general improvement of operation and maintenance economy that result from this new High Pressure Vapor Absorption System, proving so successful in machines using top and bottom felts. The regular week end shutdown usually provides enough time to complete the installation when arrangements can be made sufficiently in advance.

Even Drying Across Sheet. No Wet Peaks.

Greatly Reduced Pressure In The Dryers.

Saves Felts—Reducing Felt Costs Materially.

No Interference With Any of the Details of Machine Operation.

Consult our engineers or write for copy of our special Bulletin No. 15 which will be sent on request.

J. O. ROSS ENGINEERING CORPORATION

208 W. Washington Street CHICAGO — Main Office—122 East 42nd Street NEW YORK — 519 American Bank Bldg. PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED

NEW BIRKS BLDG., MONTREAL

ROSS SYSTEMS

HEATING—VENTILATING—DRYING

Paper Mill Activity Extends in Pennsylvania

Fine Paper Manufacturers Are Now Operating On Broader Scale—Local Plants Making Various Paper Specialties Are Working at Practically Full Capacity—While Demand For Paper Has Improved Slightly, Volume Is Below Normal Consumption Levels

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., May 13, 1929.—While the trade was enjoying a slightly better demand for paper during the past week, there is much room for expansion to bring the volume of spring buying nearer to normal consumption levels. As the distributors experience broader orders for small lot buying the wholesalers and mill representatives continue to hold their demands to the larger volume of requirements among heavy consumers of paper products.

As the mid year inventory season nears the trade is marking down warehouse stock in order to clear up hold overs preparatory to the restocking season. With this end in view offerings have been coming into the local paper market from mills and larger outside distributors of special lots that may be had at attractive values. This offering of stocks does not extend to the regular lines but seems to be in the list of odds and ends which manufacturers are anxious to dispose of before the summer doldroms set in.

Slow Selling Merchandise

Distributors appear to have plentiful supplies of slow selling merchandise on hand which they, too, are desirous to dispose of before the mid year inventory. Lists of these offerings are being sent to their associates in other concerns for their opinion to purchase rather than to have these sold to the consumer at values that would not be on a parity with the current standardized mill quotations. This co-operation among the distributors to prevent prices from sagging in the consuming markets has been commended by the local paper dealers who are able to take advantage of the offerings of products for which they can find a market where their competitors have not been able to do so.

While this cleaning of warehouses is under way there is little buying of quantity from the mills but manufacturers are preparing for future business and are broadening operations in anticipation of larger business with the wind up of the mid year inventory.

Mills Show Upward Trend

As the cleaning out process is under way among the distributors and manufacturers, the local mills are looking ahead in extension of activities. Present day needs in building supplies, roofings, specially treated papers for the agricultural industries, waterproofing papers, builder's boards, asbestos products, sheathing, insulating papers and like specialties for the electrical and radio industries, fibre boards and other specialized paper wares, keep manufacturers at full capacity.

Manufacturers of fine papers are operating at from 75 to 80 per cent of capacity, except where larger contract orders for the government and big consumers in the publishing and printing industries necessitate broader scale. Most of the demand in the fine paper field of production is for book papers, both coated and dull finished. Writing papers are not as active as could be desired. Two color bonds for mail campaigning and other direct mail requirements show signs of revived interest among the advertising professions as the late springtime re-opens sales avenues for the mercantile trades.

Bags are quieter. Local bag converters are competing keenly for orders with less firmness in quotations but those who cater to the better class of bag consumers are enjoying a fairly good business in glassines and cellophane styles. Foil papers are much in demand among cigar manufacturers, as the custom of individual foil wrapped cigars become the most popular way of packing. From the five cent shapes of cigars to the more expensive sizes the foil wrap styles are being featured.

P. H. Glatfelter Co. Engages Sales Counsel

The P. H. Glatfelter Company of Spring Grove, Pa., makes the following announcement:

"For many years this mill has concentrated its production on papers running into heavy tonnage; chiefly Book Papers, in Super, English and Eggshell finishes. While this concentration will continue, an increased tonnage of quality papers will be made available for distribution through fine-paper merchants under Mill Brand, Merchant Brand or Combination Label, as suggested by the past few years' far-reaching refinements in methods, control and product. In furtherance of this policy, we have engaged the services of Charles H. Barr, of Holyoke, who will act in the capacity of Advertising and Sales Counsel for us. As our plans develop, the trade will be advised."

L. C. Glass Buys Conshohocken Wax Paper Co.

Sale of the Conshohocken Wax Paper Company, of Conshohocken, Pa., near Philadelphia, under the receivership, places the business under control of new owners, the L. C. Glass Company, Inc. The business was revived during the past week when L. C. Glass, head of the new organization, took over the reins of management and again started operations on a line of wax papers, plain and printed in sheets and rolls. The new owners have remodeled and modernized the equipment after adding many new units in order to bring the plant up to date. The reconstruction of the units has been carried on since late March when the present proprietor bought out the assets of the old concern under receivership sale. The assets of the old firm amounted to $40,560 while its liabilities amounted to $33,659. The old firm was conducted by H. B. Katzenbach and G. Weasey, who were involved in the management at the time of the receivership under voluntary bankruptcy.

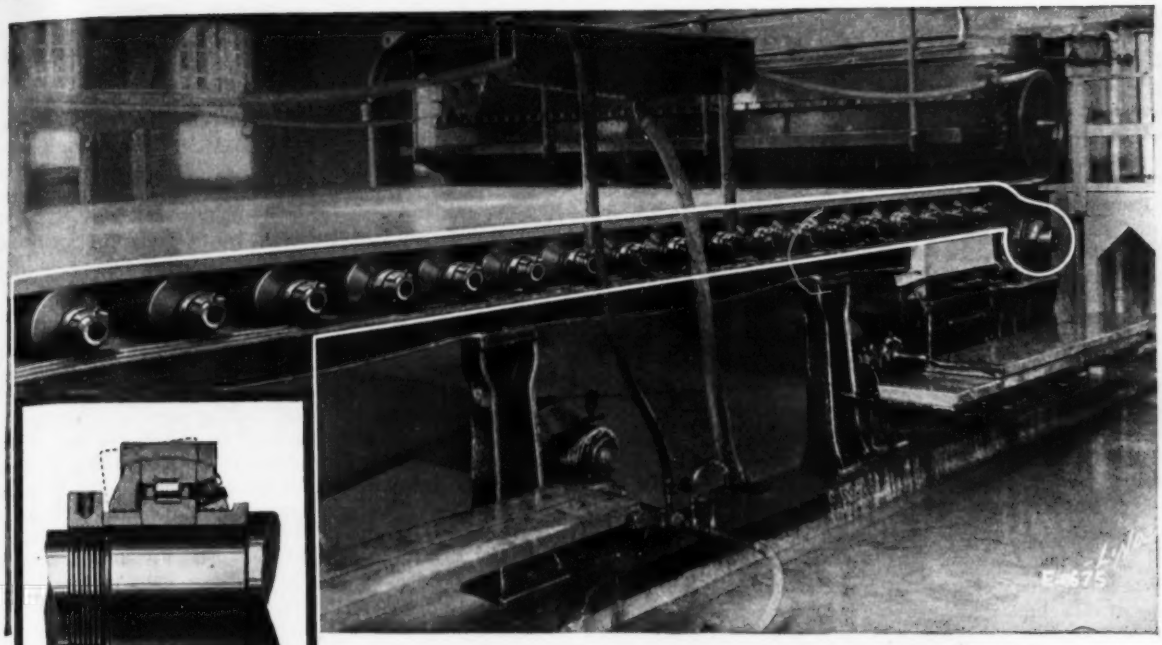
Mr. Glass has been associated with the industry for more than eight years and was one of the founders of the Conshohocken Glassine Paper Company, which he purchased from the Diamond State Fibre Company in 1922. After establishing the business he retired and joined a New England glassine concern. At the time of his association with the Glassine Company as its vice president he became financially interested in the present concern, aiding in the organization of the business. Under the plans to re-establish the business he has added much new capital and equipment, facilitating a high grade production of the wax products.

Henry L. Adler Sails for Europe

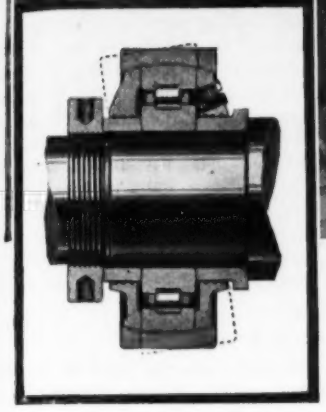
Henry L. Adler, treasurer of the Huff Paper Company, Denckla Building, sailed last Friday on the La France for a two months tour of Europe, accompanied by Mrs. Adler. He will spend the time abroad in sightseeing tours of England, France, Germany and Austria, returning in mid summer to his duties with the Huff company.

Paper Men Join In Typothetae Celebrations

Members of the Philadelphia paper trade association who are linked with the Paper Division of the Quaker City Typothetæ will join in the two Maytime celebrations which are scheduled for the current month in the annual outing and Sales Club Banquet to be held at the Bourse Restaurant. The annual meeting and outing of the Typothetæ will be held on May 27 at the Cedar-

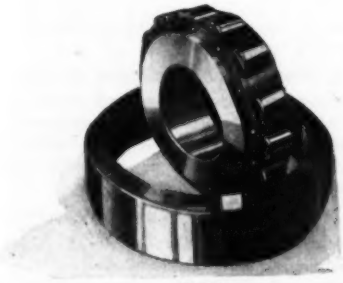


Wet End of high speed paper machine at Kenora Mills. Breast roll and wire rolls in this mill of Kenora Paper Mills, Ltd., of Kenora, Ontario, are carried on Hoffmann Precision Roller Bearings.



Self-aligning Hoffmann Precision Roller Bearing with closely fitting side plates to exclude water and retain lubricant.

Norma-Hoffmann engineers have had a wide experience with paper machinery. This experience is offered you to assist in securing economies in machine operation and maintenance.



N-963

Making wire life longer

THE Breast and Wire Rolls of this modern high speed machine are carried on Hoffmann Precision Self-Aligning Roller Bearings, with swivelling side cover plates.

Even at starting, the rolls turn freely with the movement of the wire. There is no slippage, and no drag on the wire to shorten its life. Stoppages for changing wire are less frequent and wire costs are greatly reduced. Additional economies are effected through lower lubrication costs and lower power consumption.

These advantages are natural results when paper machines are fitted with Hoffmann Precision Roller Bearings. Properly mounted, they require almost no attention and develop no appreciable wear even after years of service.

NORMA-HOFFMANN
PRECISION BEARINGS

NORMA-HOFFMANN BEARINGS CORPORATION STAMFORD, CONN., U.S.A.

brook Country Club when there will be election of officers and appointment of committees, including the paper committee. This will be followed by an outing and sports program, including golfing tournament. Members of the Sales Club which has been given over to the training of sales representatives in the printing paper, and allied trades, will close the season with a banquet at the Bourse Restaurant, on May 14th. The Paper Branch of the Sales Club is under Chairman Leonard Peck, of the Paper House of Pennsylvania, who has enrolled a large following of salesmen in the paper industry for the winter's educational series in the sale of paper and its relationship to the printing crafts. Byron Rockey, of the Hoeflich Company, is in charge of the banquet for the sales Club membership.

Matthias & Freeman To Exhibit At Box Convention

A complete line of 1929 fancy paper box papers which the Matthias & Freeman Paper Company produce exclusively for their own trade will be exhibited at the coming International Paper Box Convention which is scheduled to take place in Toronto, Can., from May 15 to 17 inclusive. The line covers the Sunrise Papers. Charles Matthias will attend the convention, making his headquarters at the King Edward Hotel, where the convention is to be held.

Paper Concerns In Centenary Celebration

When the century old firms are represented at the annual gathering of these organizations sponsored by the Philadelphia Chamber of Commerce this year there will be included among them several of the leading paper manufacturers of the Quaker City, who were not only pioneers in this city but in the nation's history of industrial progress. The Centenary luncheon is to be held at the Bellevue Stratford Hotel on May 23, when 1000 business men representing 102 century old firms will participate. This year among the paper manufactures there will be the Dill and Collins Company, of Philadelphia, successors to the first paper mill established in America, that of the old David Rittenhouse mill; Shyrock Brothers, the first paper board manufacturers in this country, with mills in Downingtown, Pa.; J. Gibson McIllvaine Company, owners of the Downingtown Paper Company, established in 1798; McDowell Paper Mills, with mills at Manayunk, in Philadelphia district, of which Charles McDowell, the present head is a direct descendent of the founder and whose progenitors have owned and operated the paper making plant consecutively since 1827; now producing glassines, fine wrapping papers and grease proof products, and the Baeder Adamson Company, producers of sand paper, which was founded back in 1828. Another concern in the eligible century old list of the Quaker City trade is William F. Murphy's Sons Company, manufacturers of stationery and noted as large contract consumers of papers catering to the leading railroads and corporations, also financial institutes of the United States, which was organized in 1820 as a paper and stationery business.

Paper Exhibits At Gift and Art Shows

Those manufacturers, dealers, and importers, who carry papeteries and other gift products made of paper or fibre, cellophane and like commodities, and who belong to the National Gift and Art Association, will participate in the coming 1929 Summer and Fall Shows of that organization, according to an announcement sent out last week from headquarters here in the Drexel Building. The National association announced that the Boston Show will be held September 16 to 21 while the Philadelphia Show is to be staged at the Adelphia Hotel from August 26 to 31.

Garrett-Buchanan Adds To Wrapping Paper Division

Plans for the extension of the wrapping paper department of the Garrett-Buchanan Company were carried out with the extension of the sales staff. Walter Shiber, who until recently was connected with the Schuylkill Paper Company as sales representatives for the twine and wrapping paper division, has been made assistant to Manager Joseph S. Weaver of the G-B Wrapping Paper and Twine Section. Ardill Corwin has also been added to the sales staff. This department will in the future be made a leading factor of the Garrett-Buchanan Company which has been chiefly a fine paper house. A complete line of wrapping papers, specialties, building and roofing papers and twines are now being stocked as the department is developed. The twine and cordage section of the business continues at the former headquarters of the Park Weikert Company on Marshall Street near Ludlow. The Garrett-Buchanan Company took over the Park-Weikert Company upon the death of the former head of that concern two years ago.

Alfred M. Collins Honored

Alfred M. Collins, big game hunter, scientist and explorer, and head of the A. M. Collins Manufacturing Company was honored during the week by election to the presidency of the Geographical Society of Philadelphia. Mr. Collins, who is a graduate of Haverford College, is an honorary life member of the American Museum of Natural History, New York; the Academy of Natural Sciences, Philadelphia; patron of the Field Museum of Natural History, Chicago; a former president of the Main Line Citizens Association; members of the African Big Game Club; First City C. Troop, Philadelphia Cavalry, and of the Rittenhouse, University, and Racquet Clubs, and numerous other clubs and organizations in civic and welfare work. His first expedition to British East Africa was in 1911-1912 after several big game hunts in the United States. He has since made several expeditions into the wilds of Africa and South America in behalf of science. He was a major in the World War.

Paper Men In Progress Drive

Among the paper trade associates who are listed in the membership of the Philadelphia Business Progress Committee, the newly formed boosters organization, and who were present at the banquet given last Monday at the Manufacturers Club, were Grellet Collins, of the Dill and Collins Company; President Simon Walter, of the Philadelphia Paper Trade Association; George W. Ward, of the D. L. Ward Company, and William Mann Prizer, of the William Mann Company. There are representatives of all the financial and industrial enterprises of the Quaker City enrolled in the newly formed body whose aim is the speeding up of Philadelphia's industrial growth by a "sell Philadelphia" campaign and which will involve an expenditure of $1,350,000 in a three way plan of advertising research and allied sales efforts. The banquet was attended by the leaders in the financial, industrial and public life of the city.

American Writing Makes Good Report

Profits of the American Writing Paper Company, Inc., for the first quarter of 1929, showed an increase of over 15 per cent over earnings for the same period of 1928, according to the company's quarterly financial statement, released today.

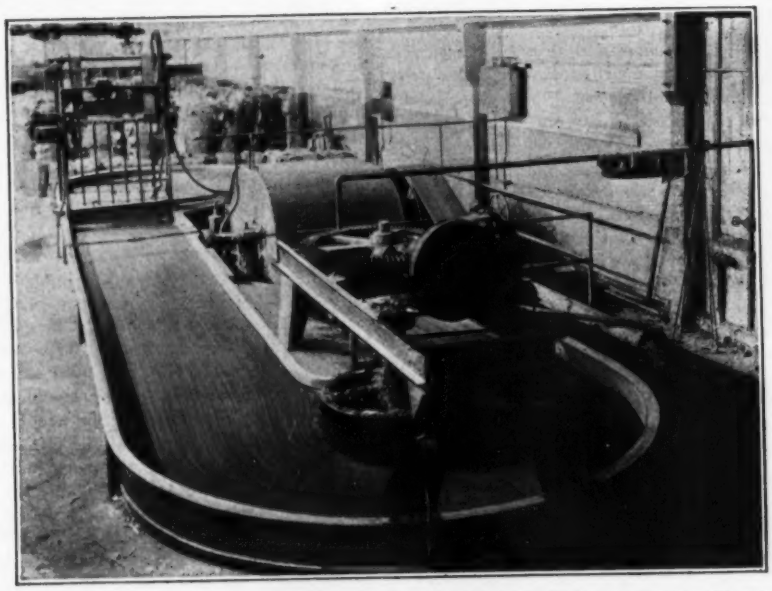
Earnings for the first quarter of 1929 totaled $81,331.03, as compared with $68,520.61 for the first quarter of 1928. Recent financial statements of this company have been showing consistent increases in profits. The annual statement, issued April 1, 1929, showed increased net profits of 86 per cent, for 1928 as compared with 1927.

Commenting upon the report, Sidney L. Wilson, president of the company, said:

"Business of the American Writing Paper Company, Inc., for the first quarter of 1929 showed earnings in excess of 15 per cent. over those for the first quarter of 1928, 90 cents per share having been earned on the preferred stock as compared with 76 cents in the same period of last year.

"The Company's business in April has been better than during the preceding three months, and the outlook for May and June is good."

Quality Production of Stock through Valley Breaker Beater!



Quality and quantity production of stock at a minimum cost—that's the Valley Breaker Beater, and this is possible through the Valley Breaker Beater Perforated Revolving Extractor which is self-cleaning during the entire breaking period. The Valley Breaker Beater does not rely on forced feed to get the stock out of the beater. The outstanding feature of the perforated revolving extractor is that the stock flows out due to a hydraulic head that can be regulated. This furnishes stock that is cleaner and especially free from metal and foreign substances. No additional screening is necessary.

The Valley Breaker Perforated Revolving Extractor can be furnished for beaters now installed in mills.

Valley Breaker Beaters are quick mixers and rapid disintegrators. Operation costs show reduction in steam and power consumption—both important items today.

A Valley Breaker Beater has never been replaced by a beater of another make. *Once installed it stays.*

Primarily thought of for board mills, Valley Breaker Beaters can be used for stock in any mill that must have a large production of stock daily. (The beater shown in the illustration above is producing 100 tons of stock daily.)

What is your problem? Information gladly furnished upon request.

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

APPLETON WISCONSIN

New York Office: **350 Madison Avenue**

Western Manufacturing & Sales Division:
Smith & Valley Iron Works Co.,
Portland, Oregon

Ontario Paper Mills Operate on Normal Scale

Book Paper Mills Are Exceptionally Active With Orders Booked For Several Weeks Ahead—Writings, Bonds, and Ledgers Are In Steady Request—Manufacturers of Coated Stock Are Booking Satisfactory Tonnages—Board Plants Slightly Less Active

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., May 13, 1929.—While paper distributors in Ontario admit that sales totals from month to month are stacking up well, the last ten days have shown little kick to business. Generally speaking, however, the trade is in a good condition with prices of all lines holding firm and sales satisfactory. There is a disposition on the part of consuming sources to confine their purchases to immediate requirements and the same complaint is heard in regard to the printing industry—it will not take advantage of discounts for large paper purchases. For the most part the printing trade, although fairly busy, will not stock up beyond the necessary paper consumption for current work on hand with the result that the paper wholesalers themselves hesitate about taking in large stocks of standard papers from the mills. There is an extensive net work of motor transportation throughout Ontario and both manufacturing plants and distributors can make quick delivery by motor truck, which has discouraged, to a large extent, the ordering of car or several car lots of any one line of paper.

Manufacturing activities are being carried on a normal scale with book paper mills being booked up several months ahead. This is probably the busiest section of the paper manufacturing industry, although there is also a good call for writings, bonds and ledgers. Practically all fine paper lines are in good demand from the mills and coated stock, which for a time slowed up considerably, is beginning to pick up, with the mills booking satisfactory tonnages. Wrapping and paper bag manufacturers report trade a trifle draggy although there has been some slight improvement in conditions and more active conditions should exist from now on. Kraft is in strong demand and both the Canadian and export markets for the product are expanding nicely. Board mills are slightly less active than they were a month or two ago but they have little cause to complain except for a tendency on the part of some manufacturers to shave prices now that several new mills are in production. Paper box plants, for the most part, are operating close to capacity and report that trade in that section is keeping up well, with good prospects for a moderate degree of activity throughout the summer months. Spring demand in the paper box industry has been exceptionally good both in standard and specialty lines.

The paper converting trade is moderately busy, although orders are larger for future delivery than for current account. As reflecting satisfactory business conditions in Ontario generally there is a good demand for envelopes and stationery lines of all descriptions, envelope manufacturing firms being quite busy and operating close to capacity. Blank books and office supplies generally are in good demand. Mills manufacturing tissues, toilets and light weight papers generally are busy and report that there is considerably less competition from outside sources than there has been for some time. Canadian-made blanks and blotters are in good call and a similar condition exists in respect to manilas.

The raw stock market continues fairly firm, with bleached sulphite in better demand than unbleached. Neither pulp manufacturers nor consumers have any stocks on hand and paper mills are still inclined to buy for immediate use only, rather than place orders for stocking-up purposes. Ground wood is still selling at around $31, with easy bleaching sulphite and news grade at $60. Bleached sulphite is slightly firmer at $77 and sulphate is still quoted at $60, all f.o.b. mill.

Waste paper collectors report that during the past week, at least, mills have not been buying heavily of scrap. This, however, may have been due to several of the mills along the canal being down owing to cleaning out operations by the Government, and the result is that some of the waste paper firms have been piling up reserves. These, they say, are likely to be depleted again next week, when the paper mills get running again on a normal basis. Prices for both waste paper and rags continue firm.

The News Print Situation

General expectation among those who follow closely the fortunes of the news print industry, is that production for the full calendar year in Canada will be somewhat less than 80 per cent of rated capacity. While output last year reached the satisfactory ratio of 83.8 per cent, it is not expected that this figure will be maintained. In other years demand for news print has caused an average increase in output of 5 per cent. It has been recognized that this percentage of increase would not always be maintained, owing to the high volume which Canadian production now amounts to.

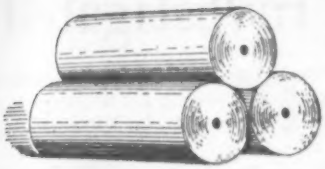
Last year Canadian mills turned out 2,381,000 tons. At the current rate of production, the total for the full year would be well over 2,500,000 tons. On the other hand there are one or two favorable factors which give rise to the belief that demand for news print will register a substantial improvement by the fall months and that by the end of the year, Canadian news print mills will be operating at a higher ratio. One is the present low price of news print, which will make it profitable for the publishers to put on campaigns to increase circulation.

When news print was about $60 a ton, added circulation frequently was an added loss to the publisher. With news print prices at their present level, it is the understanding that the publishers can add to their circulation without unduly adding to their expenses. If some of the large publishers make a drive for circulation, it is apparent that the need for news print will become greater, to the advantage of the Canadian mills. Another favorable sign is to be seen in the increase in lineage for advertising in the American publications.

At the moment expectations are that there will be no serious relapse in American business conditions during the balance of the year. If purchasing power continues to gain, advertisers will undoubtedly use news print more freely. Some of the Canadian mills confidently expect that these two developments will materialize in larger shipments of news print to the United States. For the months immediately ahead it is expected that there will be a seasonal decline in news print paper demands, owing to the slowing up of advertising, etc. By the beginning of fall, however, production should begin to show a steady gain and at the end of the year, reflect the anticipated increase in circulation and advertising lineage in American papers.

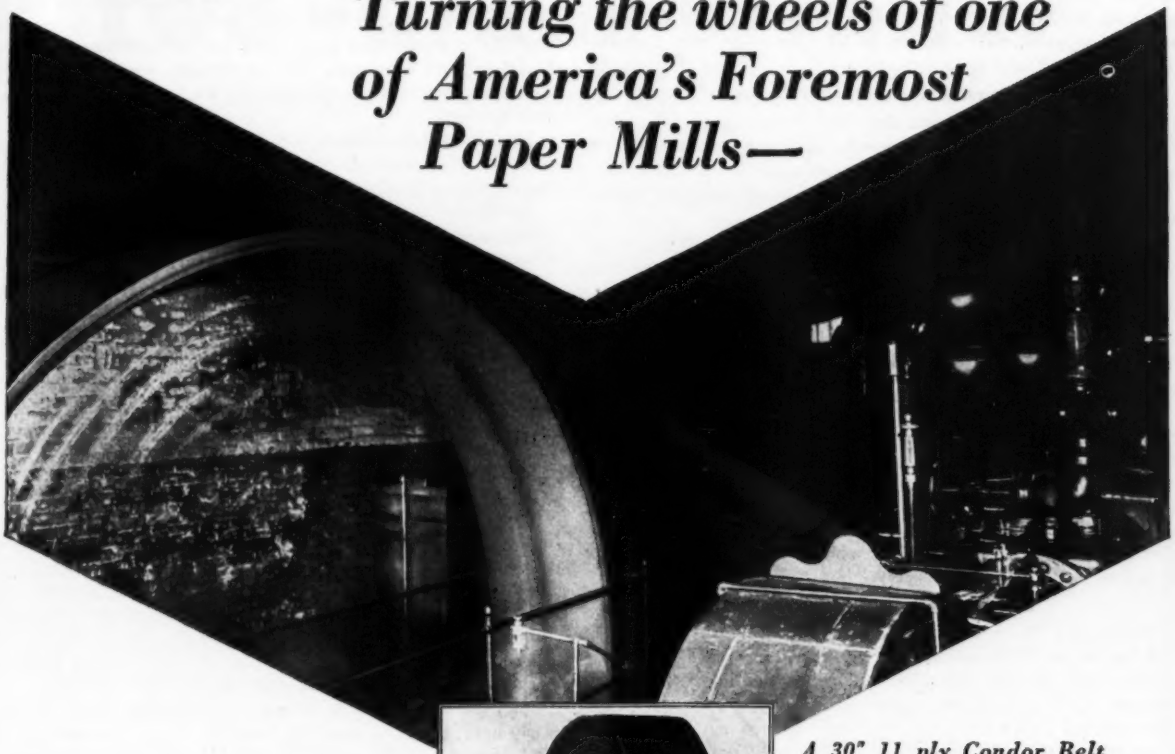
New Box Factory Nearing Completion

As the new plant of the Corrugated Paper Box Company, Ltd., is practically ready for occupation, operations will be transferred from the factory on Geary avenue, Toronto, to Leaside during the present month. Arrangements have been completed that interference with production schedules will be reduced to a minimum and output will thus be only temporarily affected. It is stated that the company is experiencing a steadily increasing demand for its products and that sales volume is solely being governed by limitations of existing manufacturing facilities and could be very largely increased if production was accelerated. Orders in hand continue to be maintained on a very satisfactory basis and indications are that the company's earnings during the present year will considerably exceed those of the last fiscal period ending December 31, 1928, when profits equivalent to $3 per share were earned on the common stock then outstanding.



Another Condor Achievement

Turning the wheels of one of America's Foremost Paper Mills—



A 30" 11 ply Condor Belt driven one hundred and twenty hours per week by a Corliss Engine. This belt is the main drive in the John Strange Paper Co. of Menasha, Wisc.

WORKING faithfully, challenging time, turning massive wheels driven by tremendous engines, this Condor Belt toils one hundred and twenty hours per week. With service records such as this, the name Condor has become famous for its superior wearing qualities.

Like all high grade products, Condor Belt conforms to rigid specifications. Regardless of the weights of duck and friction tests, time alone will prove the wearing quality. Condor Belt is steeled against time.

This picture shows a 30" 11 ply Condor Belt, the main drive in the John Strange Paper Co., of Menasha, Wisconsin. It is driven by a Corliss engine developing slightly less than 300 H.P. and running one hundred and twenty hours per week.

Let our engineers figure on your requirements. If you have a new belting problem we would like to have the opportunity of finding a thoroughly satisfactory solution. Of course, there will be no obligation.

Condor BELT

THE MANHATTAN RUBBER MFG. CO.

Executive Offices and Factories PASSAIC, NEW JERSEY

Branches in the Principal Cities

I. P. Newspaper Investments Investigated

WASHINGTON, D. C., May 10, 1929.—The Federal Trade Commission continued its investigation into the investments of the International Paper and Power Company in daily newspapers today when testimony that loans of $870,000 by the International entirely financed the purchase of four Southern newspapers was given by William La Varre and Harold Hall, of New York, who recently acquired the *Augusta* (Ga.) *Chronicle,* the *Columbia* (S. C.) *Record,* and the *Spartanburg* (S. C.) *Herald* and *Journal.*

Partnership Formed Last October

The witnesses testified that they had formed their newspaper-purchasing partnership last October. Mr. Hall said he had resigned from his position as business manager of the *New York Telegram* and president of the Scripps-Howard Supply Company to go into the venture.

Mr. La Varre, who declared he is a lawyer and 30 years old, said his previous connections in the newspaper business had been in a circulation promotion capacity with New York metropolitan dailies, including the *New York Times* and the *New York World.* He added, under questioning, that he had never written any news or editorial articles but he had written circulation promotion articles.

The witness declared he was not aware that the International was primarily in the power business and, under questioning, said he had never written anything about power and knew nothing about that subject. He disclaimed any knowledge of the International's ownership of the New England Power Association until the commission's investigation. He denied that he had ever given a false impression of being wealthy himself when he went to towns to purchase newspapers.

Sought Backing of International

Messrs. La Varre and Hall stated that they had sought the backing of the International for their ventures. Mr. La Varre testified that he and Mr. Hall had conferred first with Joseph Fearing of New York, vice president in charge of sales of the International Paper Company, and were advised by him that the International was willing to finance newspaper purchases.

In early November of last year, the witnesses said, they met Archibald R. Graustein of Boston, president of the International Paper and Power Company, and N. C. Head of New York, vice president and general manager, and immediately negotiated the financial arrangements.

The International president, the witness continued, assured Mr. Hall and himself of the necessary capital for the buying of newspapers if they were "good property."

Mr. Hall testified, however, that Mr. Graustein and Mr. Head last February advised him that no more advances would be made for buying additional newspapers until the four papers acquired were placed on a profitable basis.

Other Negotiations Failed

The papers for which the negotiations failed were named by Mr. La Varre as the *Greensboro* (N. C.) *Record;* the *Asheville* (N. C.) *Times* and *Citizen,* the *Charlotte* (N. C.) *News* and *Observer,* the *Raleigh* (N. C.) *Times,* the *Macon* (Ga.) *Telegraph,* the *Columbus* (Ga.) *Inquirer-Sun* and the *Atlanta* (Ga.) *Constitution.* In addition to these papers, he said that they had surveyed newspaper properties in Charleston, S. C.; Savannah, Ga.; Johnson City and Elizabethton, Tenn., and Bristol, Va., but he did not name the newspapers in his testimony for which negotiations had been made.

One of the newspapers, the Greensboro Record, according to the testimony of Mr. Graustein at the first hearing, was bought by the Bryan-Thomason Newspapers, Inc., and the International had a final interest of $1,000,000 in debenture bonds and $60,000 in preferred stock. Mr. La Varre developed in his testimony that the Bryan-Thomason concern had made offers for this paper at the same time he and Mr. Hall were bidding for its purchase. After they had learned of the negotiations, Mr. La Varre added, his interests withdrew their bid.

The expense advances of the International to the two men formed the basis of a close examination. Mr. La Varre testified that the company had given them two $10,000 advances and one $5,000 expense allowance. He emphasized, however, that the expense allowances were made out of the loan fund to them of the International.

"If our expenses ran over $1,250 per month allowed to each of us," Mr. Hall testified, "we had to turn in expense accounts on the surplus expenditures."

Questioned about the amount of news print paper used by the Hall-La Varre chain, Mr. La Varre testified that the *Augusta Chronicle* had used about 500 tons a year, but this year "will use 600 tons" because of increased circulation. He stated that the *Columbia Record* uses about 500 tons and the two Spartanburg papers about 800 tons. Practically all of the news print of the Spartanburg papers had been purchased heretofore from the International, he said, but the other papers have obtained their supplies from different companies.

Bagley & Sewall Busy

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., May 13, 1929.—The Bagley & Sewall Company is just now experiencing an exceptionally busy period which is keeping all departments running at capacity. The firm has just completed work on a huge paper machine for the Volga River Pulp and Paper Company which has required several months and the various parts will be shipped to the plant in Russia late this month. It is the first American machine to be shipped to that country and the firm expects similar orders to follow in the near future. A number of engineers and skilled workmen in the employ of the Bagley & Sewall Company will leave for Russia early next month to supervise erection of the new machine which will require a few weeks to place in position. The firm also plans to send several experienced papermakers to the Russian plant during the summer where they will instruct workers in the Volga mill in the American methods of manufacturing. It is said that the paper machinery now in use in the foreign plant was turned out by a German concern and it has not proven entirely satisfactory.

Value of Trade Associations

DAYTON, Ohio, May 14, 1929.—"The Value of Trade Associations" was the subject of an address delivered by Z. W. Ranck, president of the Crystal Tissue Paper Company, before the Rotary Club in Middletown a short time ago.

Mr. Ranck is known as one of the Miami Valley's leading manufacturers and has traveled extensively. He vividly brought out the fact that the value of a trade association is just what its members make it. If the members fall down on the job and fail to sustain the interest in an association designed to benefit their trade, they have no one to blame but themselves.

Acquire Mills of Robertson Co.

KEENE, N. H., May 13, 1929.—Frank W. Jeffords and Clarence B. O'Neal, both of Hinsdale, have acquired ownership of the Robertson company, operators of three paper mills at Ashuelot. They have purchased the interests of the late W. F. Robertson and Mr. Jeffords' daughters, Miss Rose Helen, and Miss Eleanor I. Jeffords. Mr. Jeffords and Mr. O'Neal have been connected with the Robertson company in executive capacities for the past 12 years.

The "M. & W." Two-Drum Winder

increases dividends by saving time when changing slitters

In almost all cases the well-known "M. & W." Four-Drum Winder is the right winder to use. Winding Rolls independently saves the finished product.

For some special work the "M. & W." Two-Drum Winder equipped with patent removable bottom slitters is more suitable, especially where several rolls are wound on one shaft.

We are now prepared to supply Two-Drum Winders, when preferred, to Four-Drum Winders, and would call attention to some of their new features, as follows:

1. **Automatic tension regulation—Raybestos discs brake.**
2. **Spreader for web of paper before slitting.**
3. **No bottom slitter shaft. Bottom slitters independently driven and removable, same as top slitters.**
4. **New type of spreader and separator prevents weaving together.**
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6. **Improved motor drive—with slow and variable high speed.**

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PAPER MILL MACHINERY

9-Point Straw Ruled Not Dutiable as Paper

A decision of importance to manufacturers and importers of strawboard was rendered by Chief Justice Fischer on April 25 in the case argued recently before the United States Customs Court, Second Division—Adrian Vuyk et al., plaintiffs vs. United States, defendant. Justice Fischer ruled that in harmony with a consistent customs administrative practice covering a period of 25 years, and with equally uniform prevailing judicial ruling on the subject, also in accordance with evidence establishing its commercial designation as such, certain strawboard made directly from straw pulp and imported in rolls, and which measures 9/1000 of an inch in thickness and is chiefly if not exclusively used in the manufacture of board containers, is properly dutiable at but 10 per cent ad valorem under paragraph 1302 of the act of 1922 as pulpboard, not laminated, as claimed by plaintiffs rather than at the rate of 30 per cent ad valorem under paragraph 1309 of said act as wrapping paper not specially provided for as classified by the collector.

Judge Fischer's Decision

John Francis Straus, of Straus & Hedges, appeared for the plaintiffs while Charles D. Lawrence, assistant attorney general and Peter Abeles, special attorney, represented the United States. The decision of Chief Justice Fischer, in part, is as follows:

"Certain strawboard assessed with duty at the rate of 30 per cent ad valorem under paragraph 1309 of the act of 1922 as wrapping paper not specially provided for is claimed to be properly dutiable under the following provision in paragraph 1302 of said act:

Paragraph 1302. Paper board, wallboard and pulpboard, including cardboard and leather board or compressed leather not laminated, glazed, coated, lined, embossed, printed, decorated, or ornamented in any manner, nor cut into shapes for boxes or other articles and not specially provided for, 10 per centum ad valorem; * * *: Provided that for the purpose of this act any of the foregoing less than 9/1000 of an inch in thickness shall be deemed to be paper: * * *

"After considerable testimony had been introduced herein, counsel for the plaintiffs moved to strike out all testimony in relation to the commercial meaning of the terms, papers, as applied to the article here under consideration, on the ground that there is no rule as to that, as Congress has defined what may be paper and therefore the definition cannot overrule the definition which Congress itself laid down.

Every View Point Considered

"Out of an abundance of caution and to insure full consideration from every possible view point of the issue presented, we have decided to deny the motion, and to hold admissable the testimony on the subject of the commercial designation. We cannot perceive how any injustice may result from the ruling, since if the testimony, which was sought to be excluded, proves anything we believe it fairly establishes a preponderence of the entire evidence in that the article in question is not only strawboard in point of fact; that it is likewise commercially so known.

"True, the Government attempted to prove that this particular commodity, by reason of the fact that it is in single layers or sheets and is made on a paper making machine, is uniformly, definitely, and generally recognized throughout the trade and commerce of this country as straw paper; but as we read the record as a whole it shows that the article is generally known as strawboard, and even were it established that the merchandise is included within the term "paper" the present record utterly fails to show that one the same token the article would be excluded from the trade understanding of what constitutes strawboard.

Government Evidence Contradictory

"We specified that whatever probative force would ordinarily attach to the oral testimony submitted by the Government was very largely overcome by contradictory evidence contained in the documentary proof in the form of contracts, catalogues, advertisements, etc., submitted by plaintiffs, particularly when such unsatisfactory oral proof is considered in connection with the fact that no attempt was made to show that the present merchandise would be excluded from the trade term 'strawboard.' On the record as a whole we found as facts:

1—That the merchandise consists of strawboard made directly from straw pulp.

2—That it measures 9/1000 one inch in thickness.

3—That it is imported in rolls.

4—That it is chiefly if not exclusively used in making board containers.

"Moreover, there would apparently have been no dispute concerning the legal classification of this merchandise as strawboard if this thickness had measured 15/1000 instead of 9/1000 of an inch. Such at least is the attitude assumed by the treasury department in T. D. 42367. But we can find no warrant in the law for such arbitrary action of the department on the contrary, Congress has specifically fixed the maximum thickness of strawboard that may be deemed 'paper for tariff purposes as less than 9/1000 of an inch.' As to such merchandise, the Congressional definition controls anything said by the department to the contrary not withstanding. For this court to countenance such advance from 9/1000 to 15/1000 of an inch in thickness as the applicable test of classification under paragraph 1302 would mean that we accept as authority and binding not the Tariff law as written and defined by Congress but rather the administrative legislation conceived and adopted by the treasury department.

"Moreover, if, as the Government witness has testified, two or more layers or sheets of straw pulp are necessary to make unlaminated strawboard, then how about the provisions in paragraph 1313 imposing duty of 30 per cent ad valorem on laminated paper board and pulp board?

Laminated Strawboard Defined

"According to authoritive dictionary definition the word 'laminated' means 'consisting of or arranged in layers or thin plates one upon the other.' Now if two or more layers of strawpulp constituted laminated strawboard, then what kind of merchandise is comprehended by provision in paragraph 1302 for paper board, wallboard and pulpboard * * * not laminated 'made dutiable at but 10 per cent ad valorem.'

"It would appear that the question is satisfactorily answered in the following excerpt from the Courts decision in the Baxter case, supra. Discussing laminated wallboard, the Court said:

"Evidently Congress regarded laminating, lining, as processes in the manufacture of board which would justly subject it to a higher rate of duty, somewhere in the act, under the well settled legislative policy of assessing higher rates of duty on articles which are advanced by complicated manufacturing processes than the rate of duty applicable to the same article in a less advanced state."

"Under the stated policy it could successfully be reasoned that unlaminated strawboard, that is, single sheets or layers of strawpulp, should pay the same rate of duty as that imposted upon laminated strawboard.

"Nor can we believe that there may successfully be raised any question concerning the Congressional intent to legislate in accordance with established administrative practice and in harmony with prevailing judicial decisions on the subject. For example, paragraph 415 of the Act of 1929 provided for 'cardboard,' the meaning of which term was thus interpreted by this Court (then the Board of United States General Appraiser). In that case we said:

"There has been considerable testimony offered to show that in the paper trade and various paper boards are included within a special group called "Cardboard." These boards it is stated may be bought and sold by a specific name, such as pasteboard, strawboard, pressboard, etc.; but it is shown by the testimony, uncontradicted, that the general term 'cardboard' is used in the grade and commerce to cover the several varieties, and we are of the opinion that the importer has fairly shown that the so-called leatherboard here in question belongs to the special group so known (cardboard)."

Effect of Court Rulings

"In affirming our stated conclusions, the United States Court of Customs Appeals, in United States v. Meyerson said:—

(*Continued on page 70*)

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We suggest you consider us as a source of supply for the following:

PLFT ACID PLUG COCK

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A primary object of this Valve is its ability to resist the commonly used commercial acid solutions, however—

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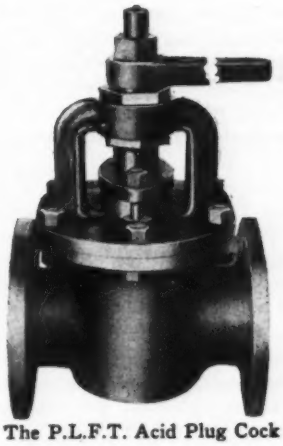

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New York Trade Jottings

The Biggs Boiler Works Company, of Akron, Ohio, announce the removal of their New York offices from 300 Madison Avenue to 50 Church street.

* * *

George E. Damrow, formerly eastern manager of the *American Paper Merchant,* is a recent acquisition to the sales force of the Keyes Fibre Company, Inc., with headquarters in the Graybar Building, New York City.

* * *

H. T. Jaffe, formerly connected with the Chatfield & Woods Company, of Pittsburgh, Pa., for a number of years, has taken over the sales for the Monroe Paper Corporation, of Lawrence, Mass., with temporary office headquarters at 75 Duane street, New York City, featuring colored kraft specialties and wrapping paper.

* * *

As the result of a meeting of its board of directors, the Merchants' Association of New York, Saturday, announced that it would resume the campaign it started some time ago for the reduction of passport and visa fees. The National Foreign Trade Council at its annual convention at Baltimore took similar action.

* * *

The Joint Committee on Approved Pulp Testing Chemists for the Paper Industry of the United States, with headquarters at 18 East 41st street, New York, announce that Felix Paquin, of the Galveston Laboratories, Galveston, Tex., has been accepted as an approved commercial pulp testing chemist and is listed as such, effective May 9.

* * *

No mention is made in the proposed new tariff bill for the creation of free zones or foreign trade zones. Both importers and exporters are in favor of the establishment of these zones which have been advocated by the Merchants' Association of New York and the Chamber of Commerce of the United States. It is understood that an amendment will be sought to the tariff bill, providing for the creation of these zones.

* * *

L. V. Redman, vice-president of the Bakelite Company, was elected president of the Chemists' Club, New York City, for the ensuing year, at the annual meeting held at the Club, Wednesday evening, May 1. Other officers elected were H. C. Bishop, resident vice-president; Edward R. Weidlein, non-resident vice-president; Robert T. Baldwin, secretary; Ray Harcombe, and E. J. Barber and G. O. Curme, jr., trustees, to serve until May, 1932.

* * *

Customs attorneys, under the auspices of the Association of the Customs Bar, are organizing a strong protest against the recommendation in the new Tariff bill that the name of the United States Customs Court be changed to the Board of General Appraisers. This was the old name which was changed by Congress several years ago. To make the change now to the Board of General Appraisers, it is maintained, would be taking a step backwards.

* * *

Allan L. Luke has given up his duties as general manager of the plant of the West Virginia Pulp and Paper Company at Luke, Md., to become associated with the headquarters of his organization at the New York Central Building, New York City. He has been succeeded by E. S. Hooker, who has been manager of the Tyrone, Pa., plant. Mr. Luke and his family are arranging to leave Luke for New York at an early date. He has for years been prominent in the business and social life of the tri-towns community.

* * *

The Roessler & Hasslacher Chemical Company, manufacturers of heavy chemicals, is now installed in new and larger quarters at 10 East 40th street, New York. Owing to the steady growth in the demand for R. & H. chemicals the move is one of necessity. The new building is forty-four stories high, and three entire floors are occupied by the Roessler & Hasslacher Chemical Company. The business office, including the traffic, bookkeeping and accounting department is located on the thirteenth floor. The sales department is on the fourteenth floor and the executive offices on the floor above.

Frank Floyd Addresses Paper Salesmen

There was an excellent attendance at the regular weekly luncheon and meeting of the New York Division of the Salesmen's Association of the Paper Industry, held in the Canadian Club, Belmont Hotel, New York.

S. C. Knode, of the Albermarle Paper Manufacturing Company, president of the association, occupied the chair and in his opening remarks stressed the importance of the membership campaign, now under way, to double the present number of members during the next few months. He also announced that the weekly meetings would close on Monday, June 17, and would be resumed on Monday, September 9.

Frank E. Floyd, secretary of the National Paper Trade Association of the United States, was the guest speaker for the occasion. The subject of his address was "Recent Merchandising Impressions." He is exceptionally qualified to discuss problems facing the paper merchant and the manufacturer, as he has made investigations in every section of the country east of the Rocky Mountains.

Mr. Floyd discussed the unfair and bad practices in the paper industry and showed how his organization was endeavoring to improve the situation. He declared that every effort was being made to have the contact between the merchant and the manufacturer of the proper kind and he confidently looked for co-operation in a common cause for the benefit of the industry and the improvement of financial returns. The credit situation has been studied very carefully by the National Paper Trade Association and Mr. Floyd expressed the view that there was no reason for competition on credit.

At the close of Mr. Floyd's interesting and instructive address, he was given a standing vote of thanks, in which all those present joined enthusiastically.

Mr. Derby on the Casein Duty

The Tariff Bill reported last week by the House Ways and Means Committee carries the duty on casein at 2½ cents per pound, the same rate now in effect. H. L. Derby, president of the Kalbfleisch Corporation and chairman of the Tariff Committee of the National Association of Manufacturers said "I am greatly pleased that the efforts of all those who opposed the increase have brought about this result. Until the bill finally becomes a Law, there is always chance for amendment, and it should be kept in mind by those who are interested in the coated paper and other industries which use casein that their efforts should not cease and that they should endeavor to acquaint all those in both the House and the Senate with the true facts relating to this important subject. Although the House of Representatives in 1922 originally brought out the Tariff Bill with casein on the free list, the rate of 2½ cents per pound was later fixed by the Senate Finance Committee, and it is too soon for us to predict that the Law, as it will finally be passed, will provide no increase in the rate."

Southern Concerns Stock New Lines

Announcement is made of the placing of two new lines recently in the Southeast by the American Writing Paper Company, these being Coupon Bond with the Antietam Paper Company, Jacksonville, Fla., and American Embossed Cover with the Bond-Sanders Paper Company of Nashville, Tenn.

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REVISED EDITION, 1928

by Clarence J. West

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Books and articles are listed under the author (or title) in the dictionary arrangement, and to refer, under each material, to the author, and the year of publication.

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Method of procedure for adoption of official paper testing methods by the Technical Association of the Pulp and Paper Industry. The work on standardization of paper testing methods is divided as follows: Microscopical, Physical, Chemical, Optical, Tests for Special Uses of Paper.

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FOREIGN PAPER TRADE GROWS

Exports of paper and paper products from the United States continued to gain during the month of March, shipments having totaled $3,441,992, exceeding the preceding month's shipments by 7 per cent and bringing the total for the first three months of 1929 up to $10,177,530 as against $7,552,056 during the corresponding period in 1928 according to the Paper Division of the Department of Commerce.

With very few exceptions all classes of paper continue to share in the upward trend in our foreign trade. A notable feature in the foreign shipments during the current year has been the heavy increase in exports of printing papers. March shipments of news print fell slightly below those of the two preceding months but they are still 85 per cent above those for the corresponding month last year while the quarter's exports of 10,100,000 pounds exceed those of the first three months of 1928 by 75 per cent. A proportionately greater increase occurred in shipments of book paper, which were 95 per cent, and of surface-coated papers, which were more than three times the volume of the 1928 shipments. Writing paper exports are also maintaining a high level, the 8,205,600 pounds shipped during the first quarter exceeding by 47 per cent the 1928 shipments.

Exports of boards of all classes also increased heavily during the past quarter, particularly in the better grades such as bristols and vulcanized fiber, and building papers, all of which have increased in volume by 70 per cent to 100 per cent during the first three months.

Wrapping papers are maintaining the slow but steady increase which characterized them during 1928, shipments of greaseproof having gained by 12 per cent and miscellaneous wrappings by 18 per cent over the corresponding quarter in 1928. Exports of boxes and cartons during the same period increased by 30 per cent and paper bags by 37 per cent.

Imports of paper and paper products into the United States during the three months ended March 31, 1929, were slightly under those of a year ago. This decrease was almost altogether due to the decline in the value of news print receipts, the total value of imports of other classes of paper showing little change. While the value of news print importations fell off, the volume of receipts, amounting to 486,792 tons (long ton of 2,240 pounds), exceeded those of the corresponding quarter last year by 4 per cent Canada and Newfoundland were the recipients of the increased purchases on our part, incoming shipments from the Scandinavian countries and Germany having fallen off. Total imports of paper and paper manufacturers for the first quarter of 1929 were valued at $37,786,599, of which $33,450,537 represented news print, and $4,336,012 other classes of paper and boards.

Imports of paper base stocks into the United States during the first quarter of 1929 have with few exceptions shown a tendency to decrease. The heaviest declines have been in pulpwood, which dropped from 431,784 cords during the first three months of 1928 to 320,376 cords during the same period this year. Exports of ground wood during the past quarter have totaled only 50,482 tons and sulphate pulp 70,768 tons, decreases of 10 per cent and 15 per cent respectively compared with the first three months of 1928. Rag receipts, amounting to 41,591 tons were 7 per cent under incoming shipments for the first quarter of last year, but on the other hand, sulphate pulp receipts were approximately the same, and imports of waste paper, waste bagging, old rope, etc. increased by 13 per cent.

Total receipts of paper base stocks for the first three months of 1929 were valued at $25,664,498, of which $3,180,904 represented pulpwood, $19,599,012 wood pulp, and $2,884,582 rags and other base stocks.

WASTE UTILIZATION

A mill service in waste utilization is being gradually developed by the American Paper and Pulp Association along lines endorsed by its National Committee on Waste Utilization and Stream Improvement. This service is available to member mills upon request. Such service includes preliminary surveys of white water utilization at individual mills and detailed studies, in mills typical of the various grades in the industry, for the development of methods of general application.

A number of such preliminary surveys have been made by the association's engineer, C. M. Baker, at the request of mill executives. Reports have been prepared, outlining the mill's problems in some detail and suggesting further studies and developments by the mills themselves. Losses far in excess of those presumed to have existed have thus been disclosed in many instances and corrective measures instituted.

The engineer's report in these preliminary surveys includes suggestions regarding:

1. Present white water losses; the most promising points of recovery; and permissible expenditures in recovery equipment.

2. Re-circulation and utilization of white water to reduce its volume.

3. Save-all equipment for further reduction in wastes and the ultimate closing up of the system.

In order to overcome the difficulties of white water utilization in the production of various grades of paper extensive studies are being developed in typical mills. This work is being organized in cooperation with the associations representing the grades involved. In these studies the association's engineer devotes considerable time to the individual mill with the view to developing a solution of its problem which can then be applied to other mills making similar products. In this way definite data will be secured that may be applied generally throughout the industry.

Obituary

William Franklin Tait

BRIDGEPORT, Conn., May 10, 1929.—William Franklin Tait, president of The Tait & Sons Paper Company, Bridgeport, Conn., died suddenly from heart trouble, Thursday, May 2. He is survived by his widow, Laura F. Tait, two daughters, two grandchildren, one brother and two sisters.

Mr. Tait was active in business up to the day of his death. He was educated in the public schools of Trumbull and the Stratford Academy. In the year 1875 he entered into business with his father following the retirement of his grandfather, Andrew Tait, a paper maker who emigrated to this country from Scotland in 1820 and later in 1836 built "Tait's Mills" in Bridgeport, and engaged in the manufacture of strawboard.

Mr. Tait was active in business up to the date of his death. He was a Republican in politics and a life long member of the Congregational Church.

George Grey

TORONTO, Ont., May 13, 1929.—The death took place in hospital at Toronto of a well known figure in the Ontario paper trade in the person of George Grey, following an illness of one week's duration from pneumonia. The late Mr. Grey was for twenty-six years connected with the sales staff of the old Lincoln Pulp and Paper Company, and latterly with the Alliance Paper Mills, Ltd., handling the company's output of paper bags. A wife and one daughter survive.

James Ablett Cook

TORONTO, Ont., May 13, 1929.—Known to the Canadian paper trade from coast to coast, James Ablett Cook, one of Toronto's oldest wholesale stationers, passed away a few days ago at the age of seventy years. For 44 years he was with Brown Brothers, Ltd., and ten years ago he, with his son, founded the business of James A. Cook & Son, Ltd., wholesale and retail stationers. A wife, three daughters and two sons survive.

Harvey B. Holden

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, May 14, 1929.—Word was received here Friday from Fulton, N. Y., of the death of Harvey Benjamin Holden, formerly a resident of Middletown, and who is well-known in paper mill circles.

It was reported Mr. Holden died in a hospital in that town following injuries received in an accident in a paper mill on Monday.

Holden was a paper worker when living in Middletown and had resided in Fulton only a few years. He had many relatives in and around Middletown.

Paper Production for March

The total paper production in March, according to identical mill reports to the American Paper and Pulp Association, was 591,204 tons as compared with 542,076 tons in February and 598,591 tons in January. The March, 1929, production was 591,204 tons as against 577,955 tons in March, 1928, an increase of 2.3 per cent. All grades excepting news print, wrapping and hanging registered increases in monthly production over last year. Paper board showed an increase of 10.5 per cent over March, 1928, production while bag increased 10.2 per cent, felts and building 10.5 per cent, tissue 1.3 per cent and writing 3.6 per cent. The following grades registered production decreases in March, 1929, as against March, 1928: news print 5.8 per cent, wrapping 8.8 per cent and hanging 40 per cent. Book paper production during both February and March was approximately at the same level as last year.

Shipments of all grades, excepting hanging, registered increases over March, 1928. The total shipments of all grades was about 6 per cent above the total for March of last year.

Stocks on hand registered a decrease as compared with February in all but the tissue and hanging grades. Compared with a year ago, the only inventory increases were in hanging and paper board, the latter showing the more substantial increase.

Identical pulp mill reports for March, 1929, showed that the total production of all grades of pulp was about 3 per cent greater than March, 1928. Mill consumption was about 1 per cent greater and shipments to the outside market 1 per cent greater than during the corresponding month last year. March, 1929, production totaled 226,520 tons against 202,792 tons in February and 230,729 tons in January.

Total stocks on hand at the identical mills reporting registered a decrease of 8.4 per cent as compared with last year. All the individual grades showed decreases in inventory as compared with the same time last year.

REPORT OF PAPER OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF MARCH, 1929

Grade	Production tons	Shipments tons	Stocks on hand end of month tons
News print	114,586	120,003	30,534
Book	101,119	103,110	46,813
Paper Board	222,186	226,579	50,017
Wrapping	52,295	55,123	49,360
Bag	15,681	16,360	7,319
Writing	33,078	35,043	37,898
Tissue	12,634	12,552	8,746
Hanging	4,040	3,942	2,891
Felts and building	6,685	7,639	1,246
Other grades	28,900	28,580	18,011
Total—All grades	591,204	608,922	252,835

REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF MARCH, 1929

Grade	Production tons	Used during month tons	Shipped during month tons	Stocks on hand end of month tons
Ground wood	95,765	86,322	2,658	91,803
Sulphite news grade	38,293	35,599	2,447	8,728
Sulphite bleached	26,820	24,442	2,338	2,521
Sulphite easy bleaching	3,455	3,156	285	743
Sulphite Mitscherlich	6,178	5,612	713	949
Sulphate pulp	30,942	25,247	5,823	4,065
Soda pulp	25,026	16,567	8,875	4,197
Pulp—Other grades	41	.....	12	38
Total—All grades	226,520	196,945	23,151	113,044

Glazed and Fancy Paper Men To Meet

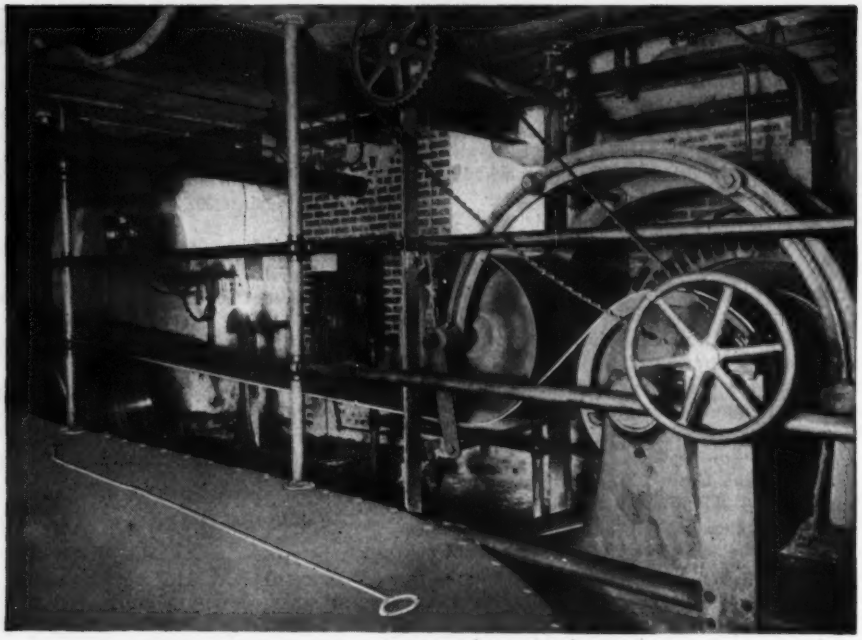
The next meeting of the Glazed and Fancy Paper Manufacturers' Association will be held at the University Club in Boston, Mass., Tuesday, May 21, 1929. In addition to the usual reports the Budget Committee will bring in recommendations for a plan of dues based on volume of sales and the Tariff Committee will report on the tariff bill recently presented to the Congress. The topic for discussion is Sales Prices and How to Set Them. This will include discussion of the use of costs in setting sales prices, amounts to be allowed for administrative overhead, distribution and selling costs, profit, charges for broken roll lots, sheeting charges, service charges for less than two roll orders, and etc.

William G. Shaw, manager and treasurer of the Middlesex Products Company is making the arrangements for the meeting. President Ralph N. Fowler, of the Hampden Glazed Paper and Card Company, will preside. John B. Van Horn, treasurer of the Holyoke Card and Paper Company will present the report for the Budget Committee. I. O. Van Duzer, of Louis Dejonge & Co., will report for the Tariff Committee. Leonard I. Houghton, secretary of the association, will have charge of the topic for discussion.

Saranac Pulp & Paper Co. Expands

[FROM OUR REGULAR CORRESPONDENT]

PLATTSBURG, N. Y., May 13, 1929.—The Saranac Pulp and Paper Company has filed notice with the Secretary of State that the number of shares of its capital has been increased from 25,000 to 35,000 shares, of which 10,000 shares are preferred stock with value of $100 each and 25,000 shares of common stock having no par value. The former capital stock consisted of 10,000 shares of preferred and 15,000 shares of common stock with no par value. The papers were filed by Feinberg & Jerry, of Plattsburg.



Shartle Breaker Beater (72" x 7") at the Manayunk, Pa., plant of the Container Corporation of America. Pulleys 24" and 32" in diameter; Motor 250 H. P., Belt Speed 2100 F. P. M., Output 80 tons per 24 hours. This 24" 9-ply Highflex belt has been in service on this drive four years.

Highflex belting functions better on troublesome paper mill drives

HIGHFLEX is a good belt for every drive in a paper mill. It is equal to the heaviest back-breaking drives and does equally well on the small pulley high-speed drive. One brand of belting in stock, equal to every emergency, simplifies the inventory and insures against misapplication. Highflex is the one brand of belt on the market that is recommended for 95% of transmission drives.

Highflex belts have a higher power capacity, and last longer. Highflex belting, now running on thousands of paper mill drives, is breaking all records for length of service before shortening becomes necessary.

The Highflex belt is a particularly satisfactory solution for the troublesome beater drive because of its non-stretching carcass, superior pulley contact, firm grip on fasteners. It performs the job with a wide margin of safety and insures against costly shut-downs.

Highflex is also an outstanding success on sectional cone drives, where its resistance to stretch is appreciated by superintendents who want to guard against shut-downs. The square edges of Highflex belting, because foldless, present a better wearing surface against shifters.

Endless Highflex belts, built to order at the factory, eliminate all fastener trouble and prolong service 200% to 500%.

We will gladly send catalogue 2105 on Highflex belting. Write to The B. F. Goodrich Rubber Co., Akron, O. Est. 1870 (in the West, Pacific Goodrich Rubber Co., Los Angeles, Cal.), or fill in the coupon below.

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

Continuous Filters Featuring Insulation Board Machines *

By Charles Fuhrmeister, Jr.[1]

In the past few years considerable time and money has been spent by various research laboratories, engineers and equipment manufacturers endeavoring to produce an insulating board utilizing such materials as bagasse, corn stalk, screenings, mill wastes, extracted residues, etc., with the result that there are a number of large mills producing insulation board known under such trade names as "Celotex," "Insulite," "Nu-wood," "Insoboard," "Masonite," "Ten-test," "Maftex," "Maizewood," etc.

Usually it has been found necessary to provide means of disintegrating and refining the raw materials. In some cases, it has been found necessary to subject the pulp to a slight cooking process, in order to soften the stock so that it could be properly refined.

In some cases the stock is screened and then deckered for storage in the usual chests.

The formation of the board is most important in order that the structure will be such to produce a board having high strength yet low density, together with a porosity which will insure excellent insulation qualities.

Various types of forming machines, such as single or double cylinders of the individual mill design, a combination of fourdrinier and hydraulic press, hydraulic press in itself, or a vacuum type specially designed drum filter, are in use.

Vacuum Type Drum Filters

Most everyone is familiar with the various applications of vacuum type continuous drum filters to the pulp and paper industry. They are used for the recovery of caustic from lime mud in soda or kraft mills, for washing brown stock, for washing bleached stock, as deckers or high density thickeners and as savealls. A special type has been developed which has proven its outstanding advantages over the various other types of forming machines.

The vacuum drum filter forms a sheet which is entirely homogeneous having no weakness lengthwise or across the sheet. The sheet is formed by a comparatively low vacuum, usually from 10 to 15 inches at the filter discharge valve. This vacuum being induced by either a wet or dry type vacuum pump.

The stock is fed to the drum filter at densities varying from ½ to 1½ per cent, depending upon the thickness of the sheet desired and freeness of the pulp. The drum revolves at an average peripheral speed of 6 to 10 feet per minute and the sheet discharged will average ⅞ inch thick, containing 80 per cent moisture.

From the drum filter the sheet is passed to suitable presses, after which it is cut into the desired sizes and finally fed into a suitable dryer.

The advantages of the vacuum drum type filter over the usual single or multi-cylinder type forming machine, are the elimination of the various laminations, elimination of belts, conservation of floor space and perfect sheet formation, also the effluent is practically free from fiber.

With the vacuum drum type forming machine the operation is continuous and the desired thickness of the finished product is easily controlled. In the case of hydraulic presses, the operation is not continuous, there is considerable waste and it is usually necessary to sand the board to the desired thickness to overcome the unevenness of the surfaces. On the vacuum drum forming machine it is possible to have both faces marked as desired.

Of the eleven plants producing the insulation board for which the vacuum drum forming machine is best suited, the total production is estimated at 1,375,000 square feet per day, for which fourdriniers are used on 150,000 square feet, hydraulic presses on 175,000 square feet and the vacuum drum filter on 570,000 square feet per day. This production includes mills now in operation and being erected.

First Drum Filter Installed Three Years Ago

It is interesting to close with the fact that the first vacuum drum forming machine installed approximately three years ago, after exhaustive tests on a semi-commercial unit, has been in daily operation with the best of satisfaction. The facing wire, originally placed on the unit in the factory is still in use and apparently good for considerable longer life. The press belt used on top of the drum had an average life of fifteen months. Thus, it is readily appreciated that the maintenance on this type forming machine is exceptionally low.

The vacuum type forming machine is manufactured in various sizes, such as 8 feet diameter x 9, 11, or 13 feet face, thus allowing for satisfactory trim. Also, a 14 feet diameter x 13 feet face is manufactured, which has a capacity of from 300,000 to 400,000 square feet per day, depending upon the stock used.

There is also a 3 feet diameter x 2 feet face unit manufactured for experimental purposes and arrangements may be made with the manufacturer for trial installation.

* Presented at TAPPI Conference, Twelfth Exposition of Chemical Industries, New York, May 8, 1929.

[1] Oliver United Filters, Inc., New York, N. Y.

Shipping on Skid Platforms *

By F. J. Shepard, Jr.[1]

It has been but natural that the skid platform and lift truck method of handling materials which has been in use in our larger and more progressive manufacturing plants for the past fifteen years should expand. The same savings which are affected within a plant can be affected in shipping from one plant to another or from the mill to the consumer, as by handling larger loads, the cost of movement is lowered.

This extended use of the skid platform would have come sooner had there not been such a multiplicity of truck and skid sizes. The standardization of skid heights was a very necessary step and it was fortunate that both manufacturers and users of lift truck equipment could turn to the Division of Simplified Practice of the U. S. Department of Commerce to help them in this move. In the spring of 1928 this work was undertaken and in less than three months a standard skid clearance was selected which has enabled industries to make greater savings in this method of shipping in the past year than has been made in the preceding fifteen years. With the handicap of different skid heights removed, manufacturers were able to specify that the raw and finished materials entering their plants should be shipped on skids. One industry after another has found ways to pack and ship its products on skid platforms although as yet the surface has only been scratched.

Plain flat skids are used to carry paper, hides, rubber, machinery, etc. Commodities such as glass, machine parts, and a large variety of small articles are being shipped in skid stock boxes which serve to hold the loads while in transit. These skid stock boxes may be provided with lock covers to prevent pilferage of valuable commodities while in transit.

Each industry usually requires some especially designed type of skid for handling their commodities to the best advantage, but once placed upon the skid, the handling methods are the same. Hand lift trucks are used for short hauls and gas or electric power lift trucks may be used advantageously for the longer distances. The added speed at which power equipment operates must then offset its greater initial and upkeep cost. The cost of hand lift truck operation, taking a 5,000-capacity unit as an example, averages approximately $.15 per day, including repairs, interest and depreciation on the investment. The electric lift truck averages approximately $3.50 per day while the gas type runs somewhat higher although its first cost is considerably less. Small plants using hand lift trucks of less than standard height may ship or receive goods on standard skids by using a detachable filler frame between the truck bed and underside of skid. Hand lift trucks are always used with power lift trucks for departmental handling and for use in crowded quarters where the power lift truck cannot operate efficiently.

Selection of Equipment

The selection of the proper type of equipment is a simple matter as it is only necessary to balance up the time saved by a power truck against its greater cost of operation. In selecting hand lift trucks for your work, care should be taken to see that the lift truck is high enough to prevent the skid from running aground on the inclined gang plank which must be used between the car and the loading dock, or the loading dock and street truck. It is interesting to find that the paper industry which was the first to adopt the skid and lift truck for plant transportation should be the first to employ this system extensively in shipping from the mills to the printer. Two types of skid platforms are used in the paper industry, the first being the heavily constructed returnable type on which the paper is usually clamped by means of long tie-bolts. Some shippers have found it advantageous to use a bowed or convex clamping top which first brings pressure to bear at the center of the sheet. In this way the entrapped air is allowed to flow out of the load instead of being confined as would be the case if the pressure is first applied at the outer edges.

The second type of skid in common use is of low cost and is usually constructed of box board or other rough lumber and becomes the property of the consignee as with a case or packing box. The paper is commonly secured on this type of skid by some system of steel strapping or wiring. Loads are often bound with both vertical and horizontal strapping to prevent any possibility of shifting while in transit.

The selection of the type of skid platform to use depends upon the service to which it is to be put. Many mills shipping to a few large customers have found that the returnable type of skid is more economical than the non-returnable type. One New England mill is at the present time using 1,200 returnable type skids which have been in service for the past four years, and are still in good condition. It is estimated that these skids paid for themselves in five rounds trips to the customer and have since been returning better than 100 per cent yearly dividends on their initial cost. The non-returnable type of skid is commonly shipped to small users who might possibly not move stock rapidly enough to warrant tying up a considerable investment in more expensive equipment. The direct saving to the paper mill from the use of skid platforms rather than cases has worked out to be approximately $5.00 per ton.

Shipping Economies

A New England mill which averages approximately 250 tons a day is now shipping one-half their output on skids, and their figures show that over $150,000 has been saved during the past year. A somewhat smaller mill reports the saving of $60,000, over their former methods of packing and shipping. The above figures take into account only the savings in packing, handling, and loading in the car at the mill. The customer can unload a car of skidded paper in approximately one-tenth the time required for cased paper, and he also saves the cost of unpacking as the skidded paper can be moved directly to the press which saves one or more handling at this point.

Skidded paper is being shipped by truck and by boat as well as by rail and at the present time four inter-coastal lines serving the west coast trade will accept skidded paper for shipment. Skidded paper is being shipped from Portland and Boston via coastwise lines to New York and Philadelphia with entire success. Hudson River boats are delivering paper in New York City from several mills located along the river. A large number of New York truck contractors have equipped themselves with lift trucks in order to handle the rapidly increasing amount of skidded freight which is coming into the city.

Space Requirements

An objection originally raised against skid shipments of paper was that an excessive amount of space was lost between the underside of the skid and the floor. This has proved not to be an objection for at the present time 4,000-lb. loads of skidded paper which are being shipped occupy 58 7/10 cubic feet or approximately 30 cubic feet to the ton. The same class of paper packed in 600-lb. cases measure 44 cubic feet to the ton. From twelve to fourteen skid loads are ordinarily shipped per car which gives a very good loading factor.

Where it is necessary to pile loads of skidded paper more than one tier high, there are on the market power driven portable elevators which will place one 5,000-lb. skid load on top of another with a small amount of effort. By this means as much or more skidded paper can be piled in a warehouse as with cased paper.

* Presented at TAPPI Conference, Twelfth Exposition of Chemical Industries, New York, May 8, 1929.
[1] Treasurer, Lewis-Shepard Co., Watertown, Mass.

The labor entailed is much less as a single skid load of paper can be handled in a fraction of the time required to pile six to eight cases.

Other industries are following the paper manufacturers and a constantly increasing variety of commodities are found on skids. Sheet steel is received on skids by the automobile factories at Detroit. Many of the can manufacturers specify that their tin plate shall be strapped in bundles and so loaded in the cars that lift trucks may be used in unloading. Large tool manufacturers are now skidding heavy machines on runners of heights which allow the use of lift trucks in loading cars. The Cincinnati Milling Machine Company reports that they have been able to cut car-loading costs 84 per cent by this means. By means of lift trucks, a car is now unloaded in 45 minutes at a cost of $.98, as compared with 7½ hours previously at a cost of $24.00. The saving in this case amounts to the rather fantastic figure of 95 per cent.

The possibility of increased efficiency in shipping may be visualized from the figures recently collected by the Department of Commerce. After a thorough study of advantages and possibilities of this method, it is estimated that the minimum amount which can be saved by using skids wherever practical is $100,000,000 a year. When it is considered that this country's total freight amounts to approximately two billion annually, and that in many cases the cost of packing, loading, and unloading goods exceeds the freight charges, this 5 per cent minimum saving does not appear at all improbable.

An Improved Paper Mill Floor*

By C. A. Stewart[1]

From the standpoint of operation the floors of paper mills must meet three main requirements. They should resist traffic without dusting and without cracking; be waterproof; resist the action of alkalis and acids.

Dusting of course is always objectionable. Cement dust settling on the semi-finished product may easily ruin it. If it lodges in the bearings of expensive machinery can cause untold damage. Floors which crack eventually break up. An ideal floor should never dust nor crack.

In the manufacture of paper large volumes of water and other liquids are freely used. Therefore the floors on which this water is spilled should be impermeable. This is apparent as regards upper floors where drippings to the under floors would be certainly objectionable. But even on ground floors water seeping through a floor might eventually undermine the floor and perhaps cause the slab to crack. It is much cheaper to waterproof a floor in the beginning than it is to rip out and replace a cracked floor.

Ordinary cement floors are readily attacked by the chemicals normally used in the paper industry. They deteriorate rapidly under such attacks and eventually are destroyed.

But before they are completely destroyed partial deterioration interferes seriously with truck traffic and also with general operation. By all means make your floors resistant to the action of chemicals which will be used in your business.

Aside from the operation standpoint there is the question of building maintenance to be considered. Dusting floors mean rapid wearing floors and consequent early replacement. This of course is to be avoided. Permeable floors permit the passage of water and if steel reinforcing is used allow this reinforcing to oxidize and eventually to be destroyed, rendering the floor unsafe. In the same way alkali or acid solutions reaching steel reinforcement will quick destroy it.

Preparation of Cement Floors

It is possible to secure all of the desirable qualities in a floor by the addition of an integral waterproofing compound to the gauging water used to wet down the dry mixture of cement, sand and stone or cement and sand. In addition to the use of such an integral compound there must be thorough supervision. We have found that the best floor for paper mill conditions is one in which the floor slab is made of concrete containing one part cement, two parts sand and four parts stone or gravel to which has been added a certain definite proportion of waterproofing compound. On this slab should be placed a topping or finished coat composed of one part cement and two parts sand or one part cement, one part sand and one part of grit to which has also been added a definite percentage of waterproofing compound. This topping is best laid while the slab is still wet so as to produce a monolithic job. But if this is impossible the slab must be thoroughly roughened and all dirt removed before applying the topping. Just before laying the topping a grout of water, cement and compound should be applied to the slab so as to insure a positive chemical bond between the slab and the topping. Toppings should always be turned up or rounded at the walls to protect the joint between floor and walls. If floors are to be subjected to large quantities of liquid it is desirable to place trenches in the slab, properly located to carry the water to the drains. These trenches should have the same topping as the floor and the latter should be graded toward the trenches so as to keep the floor as free from liquids as possible.

It is most important that floor finishes be thoroughly steel trowelled. The work should be smoother and continue longer than in ordinary construction. After work is completed and the floor has set sufficiently all topping should be thoroughly wet down with water and kept wet for at least five days after completion. This curing process is very important in preventing hair cracks on the surface. It might be pointed out here that concrete tanks made in accordance with these same specifications could readily be built at the same time as the floors. Such tanks would resist the action of all chemicals used in the paper industry and would not only be cheap in first cost but would have a negligible maintenance cost.

The simple addition of the integral waterproofing compound to the mix in the specified proportions renders the resultant masonry waterproof, hard and dustless and resistant to the action of alkalis and acids. These results are not difficult to obtain. Reputable manufacturers of waterproofing compounds will gladly guarantee jobs done in accordance with their specifications and under their supervision, to remain impermeable, to continue hard and dustless and to resist the action of alkalis and acids, for a period of five years.

* Presented at TAPPI Conference, Twelfth Exposition of Chemical Industries, New York, May 8, 1929.

[1] Chemical Engineer, Anti-Hydro Waterproofing Co., Newark, N. J.

Paper Mill Steam Plants Keep Up With Times

The possibilities of reducing steam costs in the average pulp and paper plant are discussed in a very practical way in the enclosed article reprint "Paper Mill Steam Plants Keep Up With the Times." The authors point out the many improvements made in recent years in the design of fuel burning and steam generating equipment, and outline the general trends and objectives of development work.

While this interesting article is devoted primarily to the steam plant in the pulp and paper industry, the subject matter presented will be found of value to steam plant operators in other fields of industry.

Copies of this article will be sent to those interested upon request to the Combustion Engineering Corporation, 200 Madison avenue, New York.

Plater Effects on Continuous Paper Webs

The Eastern Manufacturing Company recently came very prominently into the limelight through its development of the Verigraph, an instrument based on certain radio principles by means of which the moisture content of a sheet of paper can be indicated and controlled directly on the paper machine. Stuart W. Webb, John G. Callan and Albert Allen, three members of the company's research staff, have recently devoted their energies to developing a process for producing plater effects by passing a continuous web of paper directly through a pair of rolls between two endless fabric belts. For their efforts they were granted United States patent No. 1,674,848 on June 26, 1928, which they assigned to the Eastern Manufacturing Co.

In order to understand the nature and operation of the improvements which they have developed, it is necessary to know something of the character of the fabric-like marking that distinguishes plated paper from other fabric-marked paper, such, for example as embossed paper or wove paper which still shows the wire mark.

Wove and Embossed Papers

The wire mark on paper is due to the wet paper stock depositing on the wire gauze of the fourdrinier wire or the cylinder mold, as the case may be, so that not only the thickness, but also the amount of paper material varies minutely from point to point of the sheet due to the cause. In the case of an embossed sheet, one of the embossing rolls that produces the effect has engraved upon it a likeness of a fabric sheet "in cameo", and the other a conjugate likeness of the same sheet "in intaglio", so that the paper is slightly raised on one side at the same point and to the same degree that it is depressed on the other. Thus there is a "right" and a "wrong" side, one side being the inverse of the other. The embossing process does not change the thickness of the sheet from point to point, but only its surface conformation. Because of this the pattern is not defined in lines of varying translucency visible on looking through, as described next in the case of plated paper.

Plated Paper

All plated papers have certain characteristics in common, and good plated papers are differentiated from poor ones by the degree and relation of these characteristics. In all cases the plated paper is marked by being heavily compressed between marking members made up in one or another way of fabric—commonly linen. There is no "right" or "wrong" side. The paper is unevenly compressed in a fabric-like pattern by the woven fabrics on its two sides; where a thread on one side registers with a thread on the other, the compression is maximum, and conversely, where a space on one side registers with a space on the other it is minimum. Heavy threads and particularly the varying compression due to random registration of threads and space gives a desired irregularity. The paper is not merely embossed, but actually varies in thicknesses, and inversely in density, from point to point, but so far as the result of plating action is concerned, the amount of stock should remain the same at all points.

In the standard and well known plating process, where the linens used are of single ply and sheets of zinc are interposed between the linen-paper-linen units, a maximum of definiteness of impression results and the paper is called "lawn". A blurred effect used on "regular linen finish" may be secured by piling, say, eight sheets of paper alternating with nine sheets of linen—commonly two-ply—into a pack before interposing the next metal sheet. An ideal "lawn" paper has a surface of somewhat more than eggshell gloss, but not shiny, this gloss being imparted by the slight repeated slip of paper on linen in the pack. The surface relief is appreciable, but appears to be much greater than it actually is, for the reason that the traces of threads that chance to register with thread traces on the opposite side are rendered darker to reflected light, and conversely more translucent, by compression of the fibers into contact and partial optical continuity, the optical effect being the same as that whereby opaque snow may be compressed into a dark, translucent, ice-like mass. This irregular weave interference pattern in color contrast, giving an appearance of an irregular fabric, and of more relief than actually exists, is an important characteristic. On looking through the sheet the fabric pattern is seen to be clearly, though irregularly, delineated by these lines of varying translucency, which do not reproduce the weave of a single linen, but rather the thread superposition of the two. If two-ply linens are substituted for single-ply, the back linens have some effect, but a much less sharp one than do those in direct contact with the paper on each side.

Shortcomings of Continuous Imitation Plating Processes

Up to the present time the various processes for fabric marking a continuous paper web have produced papers that lack in various degrees the distinguishing characteristics of high grade plated paper, and they have therefore been applicable only to the cheaper grades. Some of the differences between best current continuous process finishes and best plated finishes are noticeable only to one reasonably skilled in judging linen-finish papers, but in the aggregate they determine a difference in selling price amounting to many thousands of dollars annually in the product of each machine. The apparatus and process devized by the inventors, when constructed and operated as described below, is claimed to produce a finish quite indistinguishable from that of the highest grade of plated papers, particularly lawns.

In previous continuous linen finishing machines of the same generic type as that disclosed in the Guild patent (United States patent No. 1,227,714, September 3, 1918) it was found that no satisfactory impression, either as to surface or as to "look through", could be made on paper of the degree of dryness commonly found in paper run off from the paper machine under ordinary conditions, and in commercial practice paper for such machines has been prepared for finishing by moistening, as by sprays. In all of the methods commercially attempted the paper was given, or was allowed to retain, a percentage of moisture, usually between 7.5 and 8.5 of the dry weight, uniformly distributed through the whole of the paper. Where sprays are used and there is some unavoidable initial streakiness, the paper is rolled up and allowed to stand long enough to insure absorption and equalization from point to point in the sheet and through its thickness.

Paper carrying some such degree of moisture has sufficient plasticity so that it receives on the belt machine a strong surface impression, and shows on looking through a clear fabric-like pattern, but in comparison with a first rate plater lawn the finish of even the best of these papers made on a continuous finishing machine has had an appearance which has been described variously as "dead", "mechanical" and "monotonous", even in papers from machines using a hard and soft roll in the nip.

Causes of the Difference Between Plated and Continuous-Finished Papers

In the machine disclosed in the Guild patent one of the nip rolls which force the marking fabric into contact with the paper is of some such material as compressed cotton or paper, and the maximum specific pressure than can be applied to any point of the paper to be marked is limited by that which can be continuously supported by this relatively "soft" roll and is for this reason considerably less than the maximum available in plating by the ordinary process; it is in fact not enough to give a sufficient mark on paper even of the soft "linen" grades containing as little as, say 5 per cent moisture; this weakness is considerably more apparent if the paper has been previously calendered. Even if the total load on the nip is greatly increased, the "soft" roll compresses and widens the concave area supporting this pressure, so that the specific pressure at any point is not increased proportionately. Further, the total pressure cannot be carried up beyond a certain point, variable from roll to roll, without causing rapid

deterioration of the cotton, paper, or other material of which the "soft" roll is made.

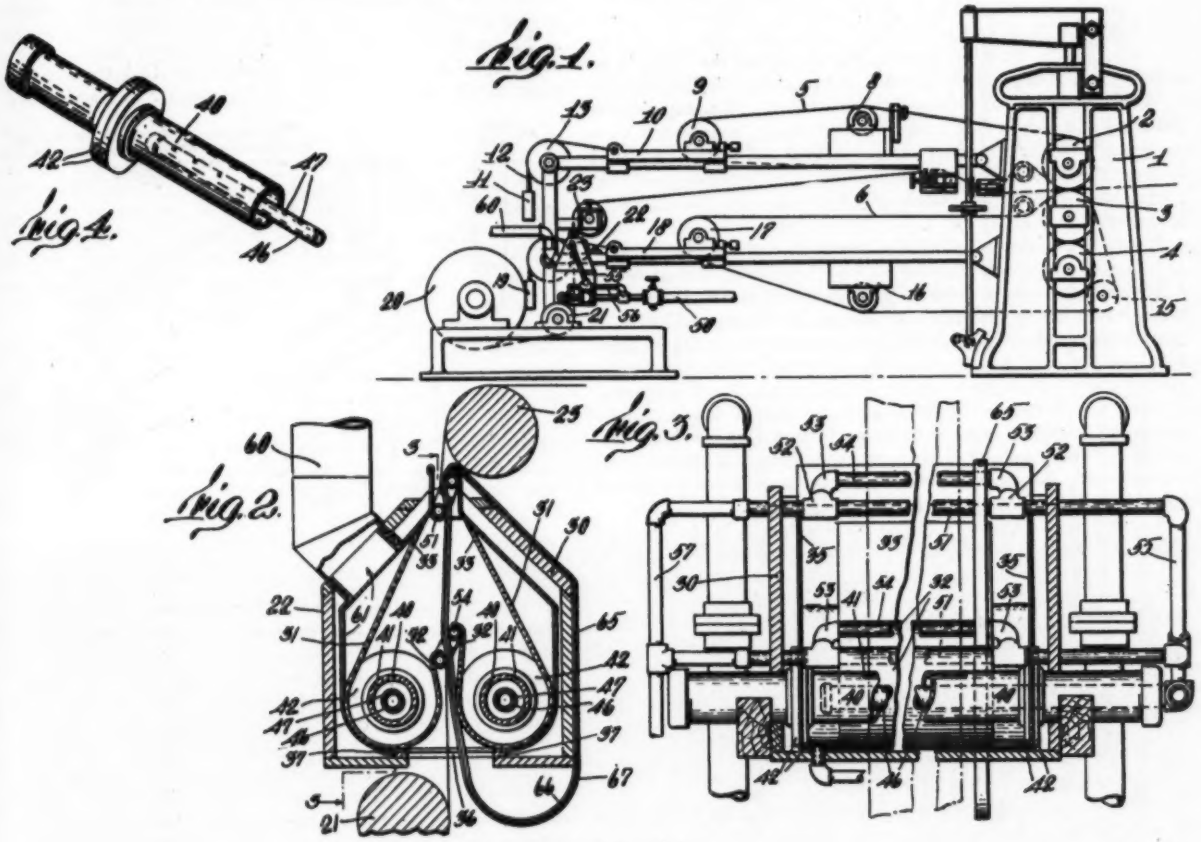
Paper moistened throughout its thickness by any of the procedures enumerated above to a point where it marks well is thereby rendered somewhat limp, plastic and susceptible of a sort of molding process under pressure. Such paper, when run through the usual type of continuous finishing machine, acquires a "look through" not very much different from that of plater lawn, except that there is less of the slight general translucency that is imparted to the "look through" of lawn by repeated extremely heavy pressure on paper that is resilient rather than soggy. The surface, however, is much less satisfactory; the imprint of the fabric is in the nature of an exact molded replica of the surface of the adjacent linen rather than an interference pattern recording the weave registration of the linens on the two sides. This lack of diversity or "character" in the marking is the main reason that has led to the characterization of such paper as "mechanical", "monotonous" or "dead" in appearance.

The inventors did a large amount of work and prepared and compared numerous samples before finding out that the difference was due to the fact that the plater lawn was marked primarily with a pinched-in interference pattern of the marking fabrics on the two sides of the sheet, with only a slight and occasional surface molding sketchily reproducing the adjacent fabric surface, while the reverse was true of the belt-finished or continuous finish linen-marked paper which showed on each side a faithful mold of the adjacent surface, obscuring the true plated pattern.

Another difference between plated and continuous-finish paper has resided in the character of the surface polish. Two factors are concerned, first, the smaller specific pressure in the continuous machine as compared with the plater, and the single pass in the former against usually two or four in the latter lead to less actual polish on the continuous-finish paper, even from hard and soft roll machines which give some slip during the passage through the nip; second, the close network of lines on the surface of the continuous-finish paper compared with the relatively sparsely marked surface of the plated paper gives the former an appearance of less polish even when the actual ratio of specular to diffuse reflection as determined by polarized light test is the same in the two cases.

With paper moistened throughout to 8 or 9 per cent the pleasing diversified "pinch" or weave interference pattern on the surface, even with the best possible belt construction, was found to be obscured by the monotonously regular plastic reproduction of the surface weave of the adjacent linen. With paper of 5 or 6 per cent moisture content, well absorbed, there is notable improvement in that the paper does not so fully hold the plastic surface mark, but the interference pattern also is less marked, and with still drier paper there is no sufficient mark of any kind, though what there is consists of the high points of an interference pattern.

The best of this paper heretofore produced has had a good surface mark, but not a sufficient polish for high grade linen paper. If super-calendering was resorted to, to increase the polish, paper sufficiently wet to receive the linen finish was found liable to blacken due to becoming compacted to translucency. While some remarkably good samples were produced by this combination of moisture and supercalendering, it was found commercially impossible to hold with reasonable consistency the distributed



Figs. 1, 2, 3 and 4.

Fig. 1—Side elevation. Fig. 2—Transverse vertical section through the steamer and adjacent parts. Fig. 3—Section on Line 3-3 of Fig. 2. Fig. 4—Fragmentary perspective of a steam distributor pipe.

moisture content sufficiently uniform, low enough to avoid blackening in the supercalender and yet high enough to get a good pinch mark with the fabric after being hardened in the supercalender.

Principle of the Invention

Further experiments showed that moisture may be held in paper in various ways and that the behavior of the paper is much affected thereby. The cooking and beating operations are severe in character, and water absorbed by the fibers in these processes produces "hydration," either incipient or more advanced, that contributes to "slowness" on the wet end of the paper machine.

Paper that is taken from the paper machine with a high moisture content seems to have a part at least of its moisture in this state of close attachment or pseudo-combination with the fibers, and the fibers are rendered limp and plastic thereby. Conversely, paper that has been dried and is moistened again does not, for a considerable time at least, incorporate the water into the fibers in so intimate a relation, and the amount of limpness and plasticity due to a given moisture content is less. Finally, the experiments indicated that for a few moments after water is deposited on a specimen of paper it resides on the surface and in the interstices between the fibers without at once affecting the resiliency or other properties of the fibers themselves, unless it is forced into them by great pressure.

It was thus found that if the paper on the machine is dried to a low moisture content, such as 4 to 5 per cent, is then supercalendered and afterwards the necessary additional moisture is applied just before the paper enters the finishing machine, it is possible to produce consistently and continuously a linen finish equal to the best grades of plater lawn and having a similar market value. In order to derive the maximum benefit from this process, however, it is important that the ply of fabric directly contacting with the paper shall be so formed that the individual threads are stiff and hard, while the interstices between them are unobstructed, since this brings the specific pressure of thread coincident lines higher for a given total pressure.

A satisfactory method of adding the moisture is by the use of a steam box through which the paper passes immediately before it reaches the nip between the finishing rolls, the amount of steam being so adjusted as to supply a sufficient quantity of moisture so that the weave interference pattern prevails over the plastic surface mark to about the same extent as in high grade plater lawn, and that the surface is free enough from deeply marked reticulation to exhibit the gloss to a proper degree.

Increase of moisture in the paper as it leaves the paper machine:

(1) decreases the supercalender pressure permissible or required;

(2) decreases the pressure rquired in linen finish machines for getting pinch mark;

(3) promotes plastic surface mark, so that in paper with excess of such moisture the surface mark catches up with and obscures the pinch or interference mark, and reticulates or cuts up the surface and obscures the polish. For No. 2 linen, 4 per cent is low and 5.5 per cent is high.

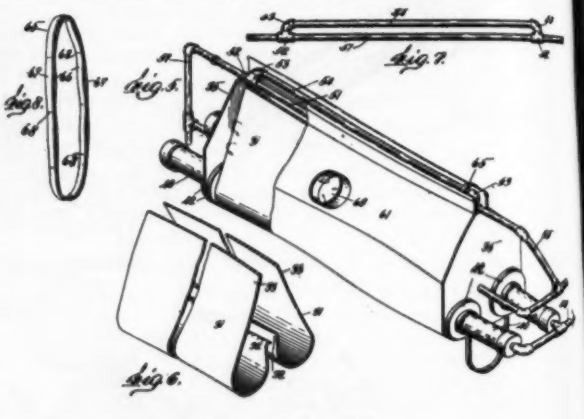
Description of the Apparatus

An apparatus has been devized for efficiently carrying out this process and is shown in the accompanying drawings.

The three rolls (2), (3), (4) are journalled in the stand (1). Through the nip between the rolls (2) and (3), which are pressed together with heavy pressure, is passed a pair of fabric belts (5) and (6), one of these rolls, as (3), being relatively soft and the other relatively hard. The belt (5) is shown as passed about the roll (2) past a belt-steering mechanism (8) and over a head roll (9), the tension of the belt being maintained by mounting the roll (9) on a slidable carriage (10) urged away from the stand (1) by means such as a weight (11) attached to a cable (12) passing about a pully (13) and fixed to the slide (10). The bolt (6) passes partially about the relatively soft roll (3), about an idler (15), a steering device (16) and a head roll (17). The latter is mounted on a slide (18), which is urged away from the roller stand by means of a weight (19) similar to the upper slide (10).

The paper to be finished is shown as roll (20) and is led from this roll about a guide roll (21), vertically through a steam box (22), about a roll (23), and thence is guided to the nip between the rolls (2) and (3) between the confronting stretches of the belts (5) and (6). It is thus seen that the paper passes through the steam box on its way to the nips between the rolls (2) and (3), and these rolls travel at a sufficiently high rate so that the time elapsed between the emergence of the paper from th steam box and its passage through the nip is vry short, preferably not over two or three seconds.

The steam box itself comprises an outer casing (30) which may be made of waterproofed wood, and within this casing and spaced from it is a metal inner lining composed of a pair of plates (31) having their lower ends bowed upwardly at (32) (as best shown in Figure 6) and their upper ends (33) converging toward the outlet opening for the paper. These plates (31) terminate somewhat within end plates (35) of the steamer (as best shown in



Figs. 5, 6, 7 and 8.

Fig. 5—Perspective, partly broken away, of the steamer. Fig. 6—Perspective of the steamer lining plates. Fig. 7—Side elevation of a sealing member. Fig. 8—Paper threading belt.

Figure 5), so that steam admittted between them may escape about their ends and pass between them and the casing (30); in this way they are kept hot, and after the first few minutes of operation the moisture from the steam is not condensed on them. The outer casing (30) is provided with a slot (36) for the passage of the sheet of paper into the steamer, and strips (37) along opposite edges thereof form supports to receive the lower rounded faces of the plates (33). Extending within the plates above these faces and within the looped lower portions thereof are the steam distributing pipes (40). Each of these pipes is provided with a longitudinally extending slot (41) opening into the space defined by the lower curved portion of the corresponding plate (33), these pipes, being substantially concentric with these spaces. On these pipes, beyond the extremities of the slot (41), are collars (42) between which the end plates (35) are clamped.

Concentrically within the distributor pipes (40) are the steam mains (46), which extend forwardly from one end only of the distributor pipes and are perforated at intervals at (47) to permit the steam to escape into the annular space between them and the inner faces of the distributor pipes from which the steam escapes through the slots (41) into the steamer within the plates (33). If desired, the distributor pipes (40) may be mounted so that they may be rotated for adjusting the slot (41) in any desired direction.

In order that no drip of condensed steam shall reach the paper passing up through the steamer, the entrance and exit openings for the paper are partially closed off by heated members such as shown in detail in Figure 7. Each of them comprises a main pipe (51) to which are fixed spaced T-fittings (52) which join through elbows (53) with a pipe (54) extending parallel to and spaced from pipe (51). The ends of the plates (31) are preferably bent

over to partially engaged about the pipes (51) and (54) and the plane of the central axes of these pipes is arranged at such an angle to the passage of the paper that the paper passes there between and together therewith substantially seals the entrance and exit openings through which the paper passes. These pipes are connected through pipe connections (55) and (56) with the main steam lines, and for the purpose of removing condensate therefrom the opposite ends of the pipes (51) are connection to the pipes (57) and lead to a suitable exhaust. The pipe (54) is preferably connected to the pipe (51) in such a manner as to permit the angularity of the planes of the axes of these two pipes to be adjusted to suit the paper passing therethrough, the pipes on the opposite side of the web being relatively offset lengthwise, permitting as close a sealing contact as may be necessary without actually causing contact to be made between them. At (60) is shown the steam exhaust which communicates with the space between the plates (31) and the outer lining walls (61) of the casing (30).

Operation

During the operation of the machine the paper passes rapidly from the roll (20) about the guide roll (21) and through the steamer space, the paper being then relatively cold and acting to immediately condense steam, the condensed moisture remaining on or substantially near the surface of the paper on both sides until such time as the finishing has been accomplished. The amount of moisture distributed on the paper depends on the proportion of steam to air in the casing, which, in turn, is dependent on the rate at which the steam is supplied. The amount of moisture deposited depends on the ratio of steam to air because the surface condensation of the moisture causes the air adjacent to the surface to be freed from its moisture, which thereupon acts as a heat insulator and prevents condensation thereon. The supply of steam is so adjusted by suitable valves as to sufficiently moisten both sides of the paper equally, which is shown by absence of any tendency for it to curl. As soon as it has passed through this steamer, the paper passes to and through the nip between the rolls and between the fabric impression belts, so that the desired fabric finish is imparted thereto.

In order that the initial threading of the paper through the steamer may be readily effected, means for drawing the paper through the steamer may be provided. As shown in Figures 2, 3, 5 and 8, this means comprises an endless belt (65) which passes through the steam space within the steamer and returns outside the casing. This belt is preferably formed of two layers of material, as at (66) and (67), which are stitched together at intervals at (68) to form loop portions which may be separated to permit the insertion of the end of the web of paper, this end being somewhat crumpled and passed through between the two belts between the stitching, so that the belts tend to grip this end portion. The operator may then pull the belt around by hand and draw the paper through the steamer. After the threading has been accomplished the end portion of the paper engaged with the belt may be torn off and the belt moved to one side where it is out of contact with the paper being fed through.—A.P.-C.

Ontario News Print Industry Reacts

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 14, 1929.—Ontario's news print situation took on new activity during the first quarter of 1929, according to a report from Consul J. B. Jackson, Fort William, made public by the Department of Commerce.

Pulpwood and lumbering camps also worked at capacity as thousands of men rushed to completion winter activities in all parts of the timber limits. In the North Bay district, however, according to Vice Consul Charles W. Allen, North Bay pulpwood contractors have had a difficult time. The prices were low as a result of the slump in the paper and pulp markets and operating expenses were higher than last year.

Exports of pulpwood to the United States for the quarter ended March 31 totaled 713 cords compared with 74 cords during the corresponding quarter in 1928.

FOURTH CLASS IN SULPHITE PULPING, U. S. FOREST PRODUCTS LABORATORY, APRIL 29 TO MAY 9

REAR ROW, LEFT TO RIGHT: C. W. Richards, Continental Paper & Bag Mills Corp., New York City; W. W. Fitzgerald, Northern Paper Mills, Green Bay, Wis.; Chas. M. Carrier, Great Northern Paper Co., Millinocket, Me.; C. G. Strokirk, University of Commerce, Stockholm, Sweden; A. Christensen, Rhinelander Paper Co., Rhinelander, Wis.; W. H. Kraske, Montello, Wis.; P. C. Carr, Champion-International Co., Lawrence, Mass. FRONT ROW, LEFT TO RIGHT: Nathan Malcove, Marinette & Menominee Paper Co., Marinette, Wis.; Donald A. Buchanan, Hawley Pulp & Paper Co., Oregon City, Ore.; Walter Wiggett, E. B. Eddy Co., Ltd., Hull, Quebec, Canada; H. F. Ray, Scott Paper Co., Chester, Pa.; C. A. Shirley, Powell River Co., Ltd., Powell River, B. C., Canada; R. T. Mann, Cherry River Paper Co., Richwood, W. Va.; W. C. Prebbanow, Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.; A. Edwards, International Paper Co., Livermore Falls, Ont., Canada; H. M. Halvorsen, Abitibi Power & Paper Co., Ltd., Smoothrock, Ont., Canada.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

By Clarence J. West, Chairman

Hygroscopicity of Cellulose Esters. Abel Caille. Chimie et Indus. 19, 402-406 (March, 1928). The retention of hygroscopic moisture by nitrocellulose and by vegetable parchment (prepared by treating filter paper with 58.5 degrees Be. sulphuric acid) increases with the total sulphuric acid content, as in the case of fixation methylene blue.—A. P.-C.

Study of Cellulose and Cellulose Acetates by Means of X-Rays. J. J. Trillat. Compt. Rend. Acad. Sci. 186, 859-861 (1928). By means of Coolidge tubes with either copper or chromium targets and a cylindrical spectrograph, many samples have been studied. In the amorphous compounds the halos were studied by means of a microphotometer. Cotton linters give a characteristic crystalline but little accentuated diagram. There is experimental evidence of the existence of very small interplanar distances of the order of 1.2 Angstrom units which are attributed to the arrangement of the carbon atoms. Oxycelluloses and hydrocelluloses give very good crystalline diagrams, identical with those of cellulose, except that the orientation of the crystallites has disappeared in almost all cases, showing that these materials are formed for the most part from the same structural elements as cellulose itself. Hydrocelluloses give a crystalline diagram different from that of cellulose, which is the same for all regenerated products prepared in a homogeneous phase (viscose silk, denitrated nitrocellulose, etc.). Alkali cellulose gives a crystalline diagram analogous to that of the hydrocelluloses but the lattice is enlarged, and there are indications of the formation of compounds between the cellulose and the alkalies. Cellulose acetates possess a portion which is very clearly crystalline, dispersed in an amorphous phase. Their solution and transformation into homogeneous acetates leaves this structure intact so long as the degree of acetylation is high. Hydrolysis causes the disappearance of the crystalline part first. That is doubtless the triacetate. The principal halo obtained corresponds to an intermolecular distance of 5.2 Angstrom units and the outer halo to a distance of 2 Angstrom units. When the material becomes acetone-soluble, the crystalline part disappears and the halo is enlarged, indicating separation of the molecules. As the degree of acetylation decreases, the molecules draw closer together again, and the inner halo becomes much sharper, while the outer halo disappears. The differences in the diagrams are sufficient to enable them to be used for chemical control.—A. P.-C.

X-Ray Methods Used in Determining Structure of Cellulose Fibers: Organomolecular Investigations. O. L. Sponsler. Ind. Eng. Chem. 20, 1060-1062 (Oct., 1928). The very fine capillary tube-like character of the fibers introduces several complicating features into the investigations of their molecular structure by X-ray methods. An approximately parallel arrangement of the fibers into a block which can be turned as desired with respect to the X-ray beam gives control of the atomic planes in the fibers to a limited extent. When the beam passes lengthwise through the fibers, the block resembles a mass of crystal powder; when at right angles to the fibers the block resembles in its reflections a single large orthorhombic crystal; but when at any other position, on account of the cylindrical construction of the individual fiber, it resembles a block containing a few large crystals so oriented that their backs are parallel but otherwise in random arrangement.—A. P.-C.

Chemical Structure of Alpha Lignin. Peter Klason. Svensk Kem. Tids. 40, 3-8 (1928); Chem. Abs. 22, 3635. Substances in sulphite liquor wastes precipitated by naphthylamine hydrochloride are designated alpha-lignosulphonic acids. Previous articles have shown their relation to cinnamic aldehyde derivatives. To establish more definitely this relation coniferylhydrosulphonic acid was synthesized and precipitated with naphthylamine, starting from vanillin. The sulphite waste precipitate and synthetic product are strikingly alike. They melt at high temperatures to a pitch which hardens to a friable resin with cold water. They continuously lose water on prolonged drying. Dilute barium hydroxide in the cold yields the neutral barium salts but on warming and with excess barium hydroxide they give insoluble basic salts difficultly decomposed by sulphuric acid. Coniferylaldehyde is to lignin what glucose is to cellulose.—C. J. W.

Structure of Cellulose. Johannes Scheiber. Farbe U. Lack 1928, 334-335, 346-348. A review.—C. J. W.

Present Status of Our Knowledge of the Intimate Structure of Cellulose Fibers. R. Michel-Jaffard. Chimie et. Indus. 19, 801-808 (May), 1003-1012 (June, 1928). A review with bibliography of 53 references.—A. P.-C.

Action of Sodium Hydroxide Upon Cellulose. I. Alkalisation in the Presence of Air and in an Atmosphere of Nitrogen. Katsumoto Atsuki, Kichiro Shimoyama and Hidea Matsudaira. J. Soc. Chem. Ind. (Japan), 31, 204B-205B (Sept., 1928). When cellulose in the form of cotton fiber is immersed in 18 per cent caustic soda solution at 20 degrees C. in the presence of air, it absorbs an amount of caustic soda corresponding to $C_6H_{10}O_5 \cdot 0.7NaOH$ within 1 hour. The amount of caustic soda absorbed does not change within 8 to 12 hours, but after that it decreases steadily, becoming $C_6H_{10}O_5 \cdot 0.5NaOH$ after 24 hours, $C_6H_{10}O_5 \cdot 0.2NaOH$ after 72 hours, and $C_6H_{10}O_5 \cdot 0.1NaOH$ after 120 hours. The combined soda and sulphur in cellulose xanthate and the viscosity of the viscose decrease proportionally to the decrease of the alkali content of alkali cellulose. The cause of this decrease may be due either to the oxidation of the cellulose or to polymerization of the cellulose. That cellulose is oxidized by atmospheric oxygen in the presence of concentrated alkali solutions is generally known, and the oxidation is supposed to occur in the primary alcohol of cellulose. If the alcohol is combined with the alkali, the combination is decomposed at first and the alcoholic group is oxidized to —CHO, = CO or —COOH. Thus, the combined alkali of alkali cellulose as well as the combined alkali and sulphur contents of cellulose xanthate decrease and also the viscosity of the viscose. The oxidation of the cellulose is proved by the decrease of cellulose regenerated from alkali cellulose. But the fact that the regeneration of cellulose becomes nearly constant and the precipitate of alkali-soluble cellulose by acid becomes smaller after mercerization for about 24 hours suggests that the oxidation of the cellulose takes place actively during the first stage, and the oxidized and dissolved portions undergo a severe decomposition and can no longer be precipitated. The constancy of the copper number of the regenerated cellulose is explained by supposing that the oxidized product is dissolved in alkali solution. In the mercerization of cellulose in an atmosphere of nitrogen, the amount of combined alkali is nearly $C_6H_{10}O_5 \cdot 0.5NaOH$, showing only a very slight decrease with the time of mercerization. The combined alkali of cellulose xanthate and the viscosity of the viscose, however, decrease very slowly with the time of mercerization. It is not clear whether these decreases result from the presence of traces of air or from polymerization of the cellulose. But in the present case the decrease may be due to the polymeriza-

tion or condensation of the cellulose in virtue of the concentrated caustic soda solution.—A. P.-C.

Papermaking Qualities of Woods and Plants from Indo-China. F. Heim de Balsac and A. Deforge. Chimie et Indus., Spec. No., 592-595 (Apr., 1928). The pulp yields and fiber measurements of 56 Indo-Chinese trees and plants (designated by both their native and botanical names) are tabulated. The results show that a number of these fibers would be suitable for paper making.—A. P.-C.

Measuring Pulp and Wood Values. C. K. Textor, Paper Mill 51, No. 40, 5-6 (Oct. 6, 1928). A brief discussion of the importance of devising tests which will give a true and reliable indication of the pulpmaking quality of woods and of the papermaking qualities of pulps.—A. P.-C.

Studies on the Chemistry of Wood. II. The "Todomatsu" Pine of Karafuto. Yoshisuke Ueda and Goichi Yamada. J. Cellulose Inst. Tokyo 2, 25-26 (1926). The wood of this pine is used for the production of sulphite pulp. The effect of the mannan present on the properties of the pulp and on the utilization of the spent liquor through fermentation is discussed.—A. P.-C.

Composition and Structure of the Cell Wall of Wood. G. J. Ritter. Ind. Eng. Chem 20, 941-945 (Sept., 1928). By using sections of sufficiently small dimensions, the lignin of three species has been found to be divided approximately equally between the middle lamella and the remainder of the cell wall. The middle lamella lignin is more soluble in alcohol than the cell wall lignin. The optical phenomenon when bordered pits are observed between Nicol prisms is explained on the basis of the chain-like arrangement of the cellulosic material in the cell wall. When lignified and delignified wood fibers are treated with swelling reagents, the fiber walls thicken both outwardly and inwardly. The general angular cross-sectional area of lignified fibers is unaltered, but that of delignified fibers is changed to a circular form in which the circumference is limited by the outer layer fibrils oriented at 90 degrees to the fiber's axis. The cell wall of wood fibers is composed of several layers which can be separated by chemical means. The layers in the cell wall of wood fibers can be separated into fibrils by chemical means. The fibrils in the outer layer extend at approximately right angles to the fiber's axis; in the remaining layers, from 0 to 30 degrees thereto.—A. P.-C.

Occurrence of Pinite in Redwood. E. C. Sherrard and E. F. Kurth. Ind. Eng. Chem. 20, 722-723 (July, 1928). Pinite (monomethylcyclohexanhexol, $C_6H_6OCH_3(OH)_5$) has been secured in varying amounts from the aqueous extract of different samples of redwood heartwood (*Sequoia sempervirens*). A new cyclose, $C_6H_{12}O_5$, has also been isolated from the cold water extract of the heartwood of redwood. The two are found together, but when one is found in considerable quantity the other is always present in a smaller amount. The new compound is extremely sweet, has a melting point of 234 degrees C., and sublimes with little or no decomposition. The authors advance the tentative formula $C_6H_5(OH)_4CH_2OCH_3$, methoxy mytilit, and suggest the name "sequoiite."—A. P.-C.

Chemistry of Wood. I. Analysis of Wood Rays in Two Hardwoods. W. M. Harlow and L. E. Wise. Ind. Eng. Chem. 20, 720-722 (July, 1928); Paper Makers' Mo. J. 66, 358-360 (Aug. 15, 1928). Isolated wood rays have for the first time been subjected to chemical study. In the two species of hardwoods examined, the wood rays are appreciably higher in lignin and lower in cellulose than is the total wood. These differences are in harmony with the microscopic differences observed between the rays and the wood taken as a whole. In the case of the rays and total wood of flame she-oak, the sum of the alcohol-benzene soluble matter, lignin, pentosans, and the pentosan-free cellulose accounts for approximately 95 per cent of the sample taken for analysis. In the case of the rays and total wood of white oak, the sum of the water-soluble matter, lignin, pentosans, and pentosan-free cellulose accounts for approximately 97 per cent of the weight of the dry material.—A. P.-C.

Cellulose Resources I. The Annual Wood Crop. G. M. Rommel. Ind. Eng. Chem. 20, 494-496 (May, 1928). A discussion of the present available wood resources of the United States. The most recent available data on the annual growth of common forest trees are examined.—A. P.-C.

Paper Pulp from Logging Waste in the Douglas Fir Region. A. H. Hodgson. Ind. Eng. Chem. 20, 819-821 (Aug., 1928). A discussion of the waste from lumbering operations in Washington and Oregon and of its possible use as a source of raw material for the pulp industry. It is shown that there is a yearly accumulation in the woods of 5,800,000 cords of wood waste, 2,320,000 cords of which are western hemlock, white firs, and Sitka spruce, woods in demand for sulphite and mechanical pulps, and the remaining 3,480,000 cords are Douglas fir, cedar and pine, woods best suited for lumber and having inferior pulping properties, even by the sulphate or soda processes, but which are being made into pulp to some extent by these processes.—A. P.-C.

Rags and Their Preparation for Paper Making. R. H. Clapperton. Paper Trade J. 87, No. 7, 55-57 (Aug. 16, 1928); Paper Mill 51, No. 37, 4, 8 (Sept. 15, 1928). A description of the various grades of rags, with a discussion of their boiling, washing, bleaching and beating.—A. P.-C.

Processes for Deinking Paper. Joseph Rossman. Paper Trade J. 87, No. 3, 50-55 (July 19, 1928). Abstracts of U. S. and foreign patents dating as far back as 1800.—A. P.-C.

Caroa Fiber as a Papermaking Material. M. B. Shaw and G. W. Bicking. U. S. Bureau of Standards' Technologic Paper No. 340, Vol. 21, 323-346 (1927). Experimental, followed by semi-commercial, cooks indicate that caroa fiber could be satisfactorily used for paper making. The yield, soda consumption and the character of the pulp depend to some extent on the preliminary treatment of the raw material. Retting appears to give the most favorable results, a 55.3 per cent yield of pulp (dry pulp on dry material after cutting and dusting) being obtained by digestion with 25 per cent of caustic soda for 4 hours at 172 degrees C. When bleached with 10 per cent of bleaching powder the product compares favorably with rag pulp and is capable of furnishing paper of high strength. The semi-commercial trials were made on unretted fiber that had been beaten dry, and gave lower yields of bleaching pulp, e.g., 49.5 to 51.5 per cent. Caroa fiber has a fiber length of 2.25 to 5.75 mm. (average 4 mm.) and a thickness of 0.0046 to 0.0154 mm. (average 0.01 mm.), and should therefore have good felting properties. When less soda is used pulps are obtained which, though technically unbleachable, provide excellent wrapping papers equal in strength to those made from kraft pulp. There is no organized caroa industry at present, but the economic availability of the fiber for paper making appears promising. The papermaking equipment and technique employed in papermaking research are described in detail.—A. P.-C.

Cornstalks as Chemical Raw Materials. S. D. Kirkpatrick. Chem. Met. Eng. 35, 401-403 (1928). Utilization of the cellulose of cornstalks is discussed. Experiments on production of wall board, carried out at Iowa State College, and a plant at Tilton, Ill., for the manufacture of cellulose particularly adapted to producing parchment paper are briefly described.—A. P.-C.

Cellulose Resources. II. Cellulose from Field Crops. G. M. Rommel. Ind. Eng. Chem. 20, 587-591 (June, 1928). An examination of data on cellulose yields from corn stover, small grain and other field crops, cotton waste and sugar cane bagasse, compiled during a survey for the U. S. Secretary of Agriculture of research data pertaining to the industrial utilization of farm products.—A. P.-C.

Cellulose Resources. III. Cost of Field Crops for Cellulose. G. M. Rommell. Ind. Eng. Chem. 20, 716-719 (July, 1928). A discussion of the probable cost to the mill of cornstalks to be converted into pulp.—A. P.-C.

Paper From Cornstalks. E. F. Hulbert. Paper Trade J. 87, No. 13, 51-54 (Sept. 27, 1928); Paper Mill 51, No. 39, 12, 38 (Sept. 29, 1928). An outline of the work done by the Euromerican Cel-

lulose Products Corp. and the Cornstalk Products Co., on the production of paper pulp and of high alpha cellulose for rayon manufacture from cornstalks, with a description of the process used and of the 25 ton mill at Danville, Ill. The accomplishments to date are: (1) Cornstalk waste can be successfully gathered and delivered to the pulp mill at a price that makes its commercial use as a possible substitute for wood pulps an attractive venture. (2) A clean, high bleached, white pulp suitable for the production of many grades of white papers can be produced at a price below that of chemical wood pulp. (3) A 35 to 45 per cent yield on the dry weight of the stalk can be obtained. (4) Sufficient raw material to operate a 100 ton mill can be reproduced from year to year within a 10 mile radius of the mill. (5) The character of the pulp produced can be more or less controlled by proper control of the raw material in growing and gathering. (6) The pulp reacts very quickly to certain handling in the process and complete hydration can be accomplished almost instantaneously and almost as quickly it can be dehydrated and a free soft pulp obtained. (7) Almost any quality found in wood pulp papers can be reproduced with 100 per cent corn pulp. (8) News print equal in strength and quality to that at present made can be produced from 10 per cent sulphite and 90 per cent corn. (9) Corn board takes coloring and finishing the same as wood pulp board and has a good bending test; corrugating sheet made from corn has much greater strength than that made from straw and has a very high compression strength. (10) Completely refined pulp can be made without the use of beaters or chemicals.—A. P.-C.

Semi-Chemical Straw Pulp as a Substitute for Chemical and Mechanical Wood Pulps. Umberto Pomilio. Chimie et Indus. Spec. No., 639-661 (Apr., 1928). After discussing the inevitable shortage of wood which is bound to come as a result of the ever-increasing consumption of paper (particularly of news print) and showing that cereal straws and similar materials can furnish a practically inexhaustible supply of raw materials if the technical and economic conditions of its conversion into news print can compete with woods suitable for paper making, the author describes at length experiments and tests which he carried out on the production of news print from semi-chemical straw pulp. The pulp was prepared by a very mild cooking at atmospheric pressure with dilute caustic soda or water, followed by washing and a treatment with chlorine gas insufficient to effect complete chlorination. Paper made from 60 to 70 per cent semi-chemical straw and 40 to 30 per cent groundwood is as strong as ordinary sulphite-groundwood news print; but is somewhat more difficult to handle on high speed rotary presses, but this defect can doubtless be overcome. Under present conditions in Italy, the cost of manufacture of semi-chemical straw pulp is of approximately the same order as the cost of groundwood, and only about 6 per cent that of news grade sulphite.—A. P.-C.

Kinetics of the Cooking Reaction; Experiments on the Rate of Cooking of Straw by the Soda Process. R. Michel-Jaffard and A. Nicollet. Chimie et Indus., Spec. No., 599-612 (Apr., 1928). A detailed description is given of a laboratory investigation of the mechanism of cooking straw with caustic soda under conditions approximating those of the commercial manufacture of soda pulp. From a discussion of laws of monomolecular, bimolecular and trimolecular reactions, it is shown that the proportion of alkali consumed at the end of a given time is independent of the volume of liquor in contact with the straw, or is proportional to this volume or to its square according as the reaction is monomolecular, bimolecular or trimolecular. Under conditions similar to those used in commercial practice, the consumption of caustic soda follows the law of bimolecular reactions during the stage of maximum cooking temperature. Assuming that the alkali combined to form easily hydrolyzable compounds may be considered as combined alkali, the disincrusting reaction is not limited by the reverse reaction. The greater proportion of the combined soda is consumed during the charging and bringing up to pressure of the digester, being 12 to 13 per cent of the moist weight of the straw in the experiments described. It seems probable that the consumption of soda at this stage is governed mainly by diffusion and convection phenomena, and that the constituents giving strongly hydrolyzable compounds (particularly silica) are practically completely dissolved at this stage; they account for about 6 per cent of soda (on the weight of the straw), or approximately half the amount consumed at this stage. Though the effects of temperature were not studied through lack of time, it is considered likely they follow the exponential law of homogeneous reactions once the bimolecular rate of reaction has set in, as this rate supposes that the chemical reactions proceed at such a low rate that the effects of diffusion become negligible. The application of these results to the control of commercial soda cooks is discussed.—A. P.-C.

Pulping Flax Stock. E. R. Schafer and C. E. Peterson. Paper Mill 51, No. 41, 2, 10-18 (Oct. 13, 1928); Paper Trade J. 87, No. 16, 41-46 (Oct. 18, 1928). Results are given in detail of the pulping of flax straw by the chlorine process on a semi-commercial scale. The objective of producing pulps suitable for the better grades of paper was not entirely attained; but certain pertinent facts bearing on the process have been disclosed and observations published previously have been confirmed. The pulps produced by the chlorine process are very easily hydrated and consequently cannot be refined after the chlorine treatment. The mechanical processing must be done after the alkaline digestion and prior to chlorination. Such mechanical treatment is accomplished quite efficiently in a rod mill at moderately high consistencies. Steel rods or a steel lining in the rod mill cannot be used because of the resulting contamination of the pulp with iron. The physical properties of the chlorine flax pulps are largely dependent on the degree of pulping accomplished in the alkaline digestion. The more raw pulps require proportionately a greater amount of chlorine and the resulting waterleaf papers are, in general, proportionately more hydrated. While the variations in quality that can be attributed to the kinds of chemicals used in the predigestion are of less importance than the degree of pulping accomplished, certain advantages in the use of the sulphate process over the soda have been noted. The chlorinated pulp that has been produced by a predigestion with sodium sulphite is slightly brighter in color and higher in strength than the "sulphate," but is more hydrated. The strength of chlorine flax papers is generally higher when prepared from the pulps requiring higher amounts of chlorine, presumably because of the higher degree of hydration. The degree of whiteness of the paper, on the other hand, is higher with pulps that require the lower amounts of chlorine. The color of chlorine pulp prepared from the entire flax straw is at best a greyish white. The addition of small amounts of soda wood pulp to the chlorine flax pulp furnish increases the opacity, reduces the hardness, and slightly reduces the strength of the waterleaf paper. None of the papers produced were in themselves of commercial quality. The improvements in technique that would be possible in a commercial operation would undoubtedly eliminate many of the defects. Several of the experimental papers indicate the possibility of incorporation of chlorine flax pulps in the furnish of high grade papers. The economic aspects of the problem of the utilization of flax straw as chlorine pulp were not studied.—A. P.-C.

Austrian News Print Production Larger

WASHINGTON, D. C., May 14, 1929.—News print production by the Austrian mills during 1928 totaled 52,080 metric tons, according to figures compiled by the Ministry of Commerce, an increase of about 2,000 tons over 1927, Commercial Attache Lawrence Groves, Vienna, reports to the Department of Commerce.

Imports of news print into Austria during 1928 were negligible, amounting to less than 15 tons. On the other hand, Austrian exports are estimated at approximately 30,000 tons or roughly 60 per cent of the total output.

This latter figure is based on estimates as Austrian foreign trade statistics do not segregate news print paper from other cheap printing papers.

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Edited by
THOS. J. BURKE, C. A., Sec.-Treas.

Insurance Applicable To Balance Sheet Items*

By William B. Wiegand[1]

In this article Mr. Wiegand takes a hypothetical newly organized manufacturing corporation through the various stages of its development and operation, and describes the various kinds of risks it will encounter, together with the kinds of insurance coverage that are available to it.

In addition, Mr. Wiegand has, in this article, related the various forms of insurance coverage to the various headings in the balance sheet and in a profit and loss statement. It is a condensed statement of the use of insurance that should be of value to practicing and to private accountants.—EDITOR, *The American Accountant.*

In tracing the developments of the insurance field there is found a close resemblance between the practices of the present and those of the past, and this resemblance is much closer than in banking, although the past in the case of insurance is more remote than in the case of banking. There are, of course, many types of insurance of recent origin, but the principle of the acceptance by a group of individuals of the risk of loss to one individual antedates the development of credit, the fundamental principle of modern banking.

Insurance as compared with banking has a much wider economic influence, although less patently. Business organizations would and could function without the application of credit, but it is doubtful if many of the huge enterprises would have been inaugurated without insurance to guard against certain contingencies beyond the control of the promoters. In spite of these factors the average individual has perhaps a greater knowledge and closer personal contact with banking than with insurance. Actually, however, some feature of insurance will have a more direct bearing on the individual, his family, and his activities than does banking, and on reflection it would seem that in his every action there is hovering over him some aspect of insurance.

Types of Insurance Available

To obtain some idea of these aspects let us assume that a group of business men have entered into a project to construct and operate a manufacturing industry, and for this purpose have incorporated. The various assets in the balance sheet will be considered with respect to the types of insurance that may be obtained and in addition some of the profit and loss items.

In this hypothetical corporation the management has decided to purchase a parcel of real estate free from any inducements that might have been offered by an enterprising chamber of commerce; that is, it obtains its plant site in the open market after a study of its availability.

Because it did so the corporation before acquiring title caused to be made a search of the county records to determine that the vendor could deliver a title in fee simple. In order to protect itself from any loss that might arise because of some hidden defect in the title, it obtained a policy of title insurance from a duly authorized title insurance company.

Title insurance differs from ordinary insurance in one outstanding respect, in that the factor that may cause a loss to the insured which must be indemnified by the carrier of the risk exists at the time the policy of insurance is issued. Such a factor would be a defect in the title or an unknown right of some third party which has not come to light. In ordinary property insurance, whether it be under the general classification of fire or of casualty, the hazard insured against may never eventuate.

Surety Bond From Contractor

As soon as the corporation had acquired title to the land, its construction program was inaugurated. Aside from the various insurance coverages which the construction company that has contracted to erect the building may carry for its protection, there is another form of insurance to safeguard the corporation, namely, a surety bond from the contractor.

In an earlier paragraph comments were made concerning the seniority of insurance practices as compared with banking, and in substantiation it is to be remembered that suretyship has been known since the days of the Old Testament, antedating the Christian era. It is not insurance in a strict definition of the word, although corporate suretyship is regarded as a species of insurance and is regulated and conducted in accordance with insurance statutes. The main distinction between insurance and suretyship is that in the former there are two parties to the contract, the insurer and the insured, the first of which carries the risk. In the latter, that is, suretyship, there are three parties, the principal who agrees to perform a specified act; the surety, corresponding to the insurer, who agrees to perform if the principal does not; and the obligee, corresponding to the insured.

Become Partners of Contractors

The hypothetical corporation presented for consideration is the obligee to whom the contract bond guarantees the completion of the building at the agreed price. Surety companies in such cases are in effect partners of the contractors.

If the corporation is obliged to seek financial aid in its building

* The American Accountant.
[1] Chief Examiner of Insurance Companies of New Jersey.

program it may be required to furnish a lender's or completion bond, guaranteeing that it will erect and complete the building free from all liens and claims arising out of the construction operation.

As the construction work progresses the corporation will make payments to the construction company, and unless there is a clause in the contract making the latter liable until completion the former will secure fire insurance to protect its equity. By the time the building is completed the company will have full coverage for the buildings, and as equipment is installed further protection against loss by fire is obtained.

As the factory site is located in an area in which there are frequent high winds, wind-storm insurance is also obtained.

Because the location of the buildings is accessible to the trade, show windows to display the corporation's products were installed. To protect itself against loss by reason of breakage of these windows, the corporation will obtain plate glass insurance and can include in such coverage glass partitions and doors inside of the building. This is a type of coverage that differs from ordinary forms in two respects. First, there is an absence of moral hazard in that the insured has more to lose with little to gain by breaking or being indifferent in his care of his glass. Second, the indemnity desired by the insured is not the cash value of his broken windows, but their replacement. The carrier, however, will reserve the right to settle the claim by a cash payment, but the exercise of such right is found in but a few cases of a special nature.

The accessibility of the building must result in the use of the walks surrounding it by the general public and of course the trade —those who come to buy and those who come to sell—will use the interior of the building as well. There is a liability on the part of the corporation to the general public making such use of the walks and building, and to meet this liability the corporation must secure public liability insurance.

Public Liability Insurance

This public liability insurance will indemnify the insured against loss or damage resulting from accident to or injury suffered by any person for which loss or damage it is liable. The liability of the corporation for accidents arising from the operation of its elevators is excluded from the manufacturer's public liability policy, but is covered by an elevator liability policy. Closely related to public liability is property damage.

The corporation operating its own power plant secured insurance covering accidents to electrical machinery, steam boilers, fly wheels, and steam turbines. There are two main hazards in connection with electrical machinery, "break down" and "electrical burnout." The coverage for direct loss for an accident which stops the functions of the machine and necessitates repairs may be extended to cover the use and occupancy hazard. The latter would indemnify against the loss of use of the plant and overhead while replacements are being made.

A steam boiler insurance policy will indemnify for direct loss or damage from boiler explosion to the property of the assured and of others, and for personal injury or death resulting from the explosion. Loss of income or profit occasioned by the shutting down of operations may also be covered. Coverages similar to those in the case of electrical machinery and steam boiler are available to protect against loss or damage from fly-wheel accidents.

The corporation has a delivery system of both automobile trucks and horse-drawn vehicles. For the first, it has automobile insurance as to personal liability, property damage, fire, and theft. It has the same coverages on its horse-drawn vehicles and also on the lives of the horses and against loss by theft, but it decided not to carry collision insurance to protect itself against damage to its own trucks.

As was mentioned in discussing the building, fire insurance is obtained when the building is completed and this coverage was extended to include the machinery and equipment. In order to obtain a lower rate of premiums, a sprinkler system was installed. Such a system, although a safeguard to reduce the fire risk, constitutes in another sense a menace as there is always the possibility of a leak for any number of reasons. The most frequent causes of leakages are freezing, a sufficiently high temperature, not caused by fire, that will exceed the fusing point of the sprinkler head, and defective equipment. If the tank of water for the system should collapse, considerable damage would be done by the water and by the weight of it. Sprinkler leakage policies with indorsements will indemnify the corporation against damage caused by the leak to the assured's property, to others as to personal and property damage, and as to use and occupancy.

The corporation's inventories will consist of raw materials and partly finished and finished goods, but in the various policies of insurance no distinction is made as to the condition of the merchandise, the governing factor of which is the cash value. Under certain conditions the coverage may be extended to include the profit to be realized on the sale of the goods.

The various coverages will be as to loss by fire, including smoke and water damage arising from a fire, loss by sprinkler leakage, loss due to theft by employees under fidelity bonds, and loss due to burglary and robbery by other than employees. Comments have been made on these coverages as they apply to other assets and need not be stated in greater detail at this point.

After a few years of operations the corporation suffered a rather heavy loss because of the sudden and unexpected failure of one of its large customers. This loss brought home to the corporation's officials the value of credit insurance, a guarantee that the assured will not suffer bad debt losses in excess of the normal, average amount. That is, the policy will either prevent or pay all covered losses greater than the normal loss inherent in the assured's business.

For the corporation's cash assets several different insurance coverages may be obtained, and the most common of these is the fidelity bond which insures against loss from the defaults of persons in positions of trust. Originally a bond was obtained for each employee, but when a large number of employees are to be bonded the practise of surety companies is to issue a schedule fidelity bond covering all employees. In the schedule bond each employee and the individual coverage is stated and changes in the list are made as occasion requires; that is, new names may be added, others removed and the amount of coverage may be raised or lowered. A variation in the form of bond is found when it automatically covers the position and not the incumbent.

What Fidelity Bond Covers

The fidelity bonds of various types will protect the corporation against loss through the dishonesty of its employees, but if protection is sought against the dishonesty of outsiders other coverages must be obtained. The first of these to be discussed is the forgery bond, of which there are several types. This bond will indemnify the insured from loss through the forging of the insured's signature as drawer, maker, acceptor or endorser, or through raising or altering any check, draft, note, bill of exchange, trade acceptance, and the like. The insured may also be protected against loss through accepting a check or bank draft which is subsequently shown to be forged or raised. The hazard of checks being dishonored is not covered.

In addition to forgery bonds, and in fact more common, are policies of insurance against loss through burglary, theft, larceny, and robbery, and of this general class forms are issued to cover mercantile open stock burglary, mercantile safe, paymaster robbery, messenger robbery, and office or store robbery. Obviously, some of these forms are more applicable to merchandise than to cash. The mercantile safe policy covers loss of merchandise, money, and securities through the forcible entry of safes or vaults by burglars; the paymaster robbery policy covers the loss of payroll money and checks due to robbery of the paymaster on the streets or inside the premises of the insured. Messenger robbery covers the loss due to robbery of a messenger, not on the premises, carrying money, merchandise, or securities. The purpose of office and store robbery insurance is to protect against loss inside the premises while

business is being conducted, a hazard not covered by the mercantile open stock policy since the protection is applicable only when the business is closed nor by messenger robbery which applies only to losses outside of the corporation's office or property.

Manufacturing corporations will either distribute their earnings by way of dividends or will reinvest them in additional buildings and plant equipment. It is more than conceivable that under a plan of amortizing a bond issue there is a provision in the deed of trust whereby the corporation will set aside not only a percentage of its annual profits, but will invest a like amount in some form of securities, so that there may be no question but that it will have some liquid funds to discharge the bonds at maturity. Again, the time for enlargement of the plant's capacity may not be propitious. In this case, it is a good policy to invest the surplus cash funds to obtain a greater yield rather than to receive interest on a bank balance at a low rate.

In both of these cases it is possible for the corporation to purchase mortgages, participations in mortgages or mortgage bonds, guaranteed as to principal and interest by a mortgage guaranty. Such a company operates as a rule under the section of the law authorizing title insurance companies, although casualty insurance companies that have the charter right to guarantee the performance of an obligation, that is, to write surety bonds, may therefore guarantee the payment of principal and interest of a bond issue.

There are in addition to the foregoing types of insurance applicable to balance sheet items, other forms that have a closer connection with profit and loss items.

It is assumed that the hypothetical corporation under consideration will after some time enter the export business and will send shipments of its commodities to foreign ports. At first there are but a few shipments, but as the business expands they become quite numerous. To meet these two conditions there are two types of ocean marine policies, one special and the other open; that is, in the former a policy is obtained for each shipment whereas under the latter the insurance company agrees to insure all shipments after a stated date. The goods shipped may be insured as to the perils of the sea and as to theft and pilferage.

Before and during the time goods are being shipped on the high seas, other merchandise is being transported within the United States and the protection of such shipments is termed inland marine insurance. One of the forms of this insurance is the transportation policy which will indemnify for loss or damage to merchandise transported by railroad, freight, railway express, coastwise and inland waterway steamers. The coverage is from the time the goods leave the premises of the insured until they are delivered to the consignee.

If the corporation uses the mails as part of its delivery system it can obtain in addition to the government parcel post insurance similar coverage issued by corporate carriers. Just as there are two types of policies on marine insurance, so there are two types on parcel post, one when the mails are used infrequently and the other when the shipments are extensive.

Through the distribution of overhead expenses a large proportion of the cost of insurance is absorbed in the cost of production. There is one form of insurance that has a close connection with production, namely, workmen's compensation, the purpose of which is to indemnify for loss of wages and expenses for medical fees, hospital service, and the like, incurred because of industrial accidents.

A form of inland marine insurance that has a close connection with selling expenses is the salesman's floater. The term floater is applied to the various forms of inland marine insurance because of a variety of locations of the goods covered by them. The salesman's policy covers the samples as to loss or damage while in transportation, with certain limitations.

The foregoing is admittedly a sketchy description of some of the various insurance coverages needed in carrying on a manufacturing business. Entire volumes have been devoted to some of them, particularly workmen's compensation. The types presented do not complete the list. There are policies offered to protect against loss of crops due to hail, insects, or disease. This is a class of insurance that would be essential to an organization producing vegetables or fruit for canning. Protection may be had also against excess or deficiency of moisture, flood, rain, or drought, rising of the waters of the ocean or its tributaries, as well as earthquake, bombardment, invasion, insurrection, riot, civil war or commotion, military or usurped power and by explosion.

Numerous organizations as a substitute for a pension system have obtained group insurance on the lives of their employees.

Heavy policies of life insurance are carried frequently on the lives of the chief executives to offset the possible financial loss to the corporation because of death.

Other than life, insurance policies are contracts of indemnity and as such they have been used mainly to restore the property destroyed or damaged by a specified hazard. Almost without exception while the restoration was in process the insured suffered another loss due to the interruption of business, and for this loss there was no indemnity until comparatively a short time ago. It is now possible, for an additional premium, to obtain use and occupancy or business interruption insurance. In the conduct of a business certain expenses would continue even though the plant were closed down, as interest on indebtedness; others should be continued if the plant is to be reopened within a short time whereas still others would not be necessary or could be avoided during the interruption. The usual coverage is the amount of net profits plus continuing expenses, or gross profits less all expenses that can be avoided.

In their usual audit program public accountants do not give much consideration to the insurance items other than to determine the amount of premiums paid in advance. This is usually on the basis of the pro-rata unexpired portion, which is correct for the purpose of an equal apportionment of the operating expenses to calendar periods. For the purpose of financial condition it would seem more accurate to use the so-called short rates as they are required when the insured cancels the policy, whereas the pro-rata method is applied when the insurer cancels.

Because of the technicalities of insurance coverages the topic may be beyond the province of a public auditor but the desire to remain within that province will not deter an auditor from acquiring some knowledge of law and at times expressing an opinion as to the legal effect of certain transactions to the advantage of the client.

INSURANCE COVERAGES APPLICABLE TO THE ASSETS APPEARING IN THE BALANCE SHEET

	Type of Insurance	Carrier of Risk
Capital Assets		
Land	Title Insurance	Title Company
Buildings	Contract Bond During Construction	Casualty Company
	Fire During and After Construction	Fire Company
	Public Liability—Elevator	Casualty Company
	Plate Glass	Casualty Company
Plant and Machinery	Fire	Fire Company
	Sprinkler Leakage	Fire Company
	Steam Boiler, Electric Machinery	Casualty Company
	Fly Wheel	Casualty Company
Delivery Equipment	Automobile—Personal Injury Liability	Casualty Company
	Property Damage, Collision	Casualty Company
	Teams	Casualty Company
	Fire & Theft	Fire Company
	Current Assets	
Inventories	Fire	
	Sprinkler Leakage	Fire Company
	Theft by Employees	Casualty Company
	Burglary	Casualty Company
Accounts Receivable	Credit	Casualty Company
Cash	Check Forgery	Casualty Company
	Fidelity	Casualty Company
	Paymaster & Messenger Robbery	Casualty Company
	Mercantile Safe & Store and Office Robbery	Casualty Company
Investments	Guaranteed Mortgages	Title Company

INSURANCE COVERAGES APPLICABLE TO THE ITEMS APPEARING ON THE INCOME AND PROFIT AND LOSS STATEMENT

	Type of Insurance	Carrier of Risk
Sales	Marine	Marine Company
	Inland Marine and Transportation	Fire Company
	Parcel Post	Fire Company
Cost of Sales	Workmen's Compensation	Casualty Company
Selling Expense	Salesman's Floater	Marine Company

INSURANCE COVERAGES—Table of Policies Applicable to Items in Balance Sheet and Profit and Loss Statement.

Human Power Is Still the Biggest Factor in Cost*

By J. A. Scanlon[1]

I choose to present a paper about man power for the consideration of the members of this Chapter, because I believe it is a most vital question to be considered by all industries.

America, although great in achievement, is young in years. The corporation, as our business entity, is younger. Extensive areas and wide exchange markets have served as a restricting experience to the leaders of government and commerce. Subjection to the compulsion of narrow boundaries and century-old habits has not been the problem. Our leaders have been extensive rather than intensive and the harvest has been fruitful. But is not a change discernible? Must not the surface scratch become the close furrowing and ploughing of a smaller available area, so that a greater number may be sustained. Our contentment lies in our increased struggles and hardy tasks. Few truths are more easily admitted or more persistently ignored than that of change in human life and conditions. Principles, institutions, enterprises, even laws, are invalidated by the great law of change. The status of decay, fall, renovation, and progress, are the stages of things. As we forecast each stage, we display our good or bad management and promote either contentment or its opposite, discontent.

That a greater degree of happiness may come to mankind in these days of advancing civilization; that the multitude may be served; we must have the cooperation of every individual, with the good things of life as a necessary reward.

We all should realize that high-cost labor is with us, with no assurance that it will leave quickly. Our thoughts should be bent towards making this high-cost labor produce low cost merchandise. For anyone to say it cannot be done is an open confession of lack of ability to adjust oneself to changing conditions.

Man does as he is told, whether it be at play, work or war. His work reflects his teaching. Strange, but true we teach man how to play; we teach man how to fight in war; but we do not teach man how to work. Then we should be quick to take heed, for if it is important to teach how to play and how to war, it ought to be more important to teach man how to do his work well, and shun wasteful habits, such as I will now present to you.

There is a trinity of evils at work in most industries, which illustrate the want of proper teaching methods. These evils, if not corrected, will very soon create an abnormal burden that may in time become very costly. The three evils are:

1—Absenteeism.

2—Tardiness.

3—Anticipation.

I will now dwell on each of these more fully.

Absenteeism.—This is a term used to place before you the workman who, from various causes, absents himself from his daily work without giving any advance notice to his foreman and whose absence is not discovered until after starting time. It is readily seen how costly this is, for very few industries can afford to carry a second man who can do anywhere near as well, but the organization as affected must put up with the best there is, which is always costly—measured, of course, by the importance of his relation to the work to be done.

Tardiness.—This is a term used to describe the workman who arrives late at work, keeping all the rest of the men with whom he comes in contact informed with the news of the day, who is indifferent, grumbling, cunning, and, because he is cunning, has the faculty of making it appear he is working hard, and is able to stall because his work was never standardized; neither has a time, job, or motion study been made of his work.

Anticipation.—To the mind of the writer, this is the capital offense to which no one pays much attention because it is common and all indulge in it. But its cost can be arrived at by figuring out the number of men, by the number of minutes lost each day, by each man employed, by the number of working days in the year, reduced to hours lost, multiplied by the rate per hour—an amount so large as to cause anyone serious worry. I refer to your workman who feels he has a perfect right to leave off work ten, fifteen or twenty minutes before quitting time, so as to be in position to depart immediately when the signal is sounded to go.

Without wishing to be didactic, I know, from association with men, they are only too willing to be corrected. This you must do, for coming competition will not permit the offenses to continue for any length of time and the first to issue corrective instruction will be able to cut cost of production very much, and reap the harvest.

It makes little difference how a man dresses, white collar or a black shirt, he is ambitious, and to use a common expression, will work his head off if compensated accordingly. When men seek work they look for something else and while the workman cannot always call what he wants by name, the Efficiency Engineer does know, and the best factors it has been my pleasure to see put forward are nine in number, as follows: (1) money, (2) reward, (3) promotion, (4) steady work, (5) good teaching, (6) just foreman, (7) policy book, (8) honest treatment, and (9) a right to a hearing in case of dispute. What is meant by each?

Money: Wages received.

Reward: Compensation in some form; may be a bonus, vacation, certificate of merit, medal of honor, or the privilege of purchasing interest in the business.

Promotions: To feel if there is a change in the ranks, an opportunity will be given to him before one from the outside is chosen.

Steady Work: So long as it is possible to retain him in his own department, do so. Should work slacken in his own department, while another department is busy, transfer him to the busy department, paying the prevailing rates in the department to which he was transferred, but should it be a general shut-down, dismiss him with the understanding that he will be called back, in line with his record of service, as outlined in the Policy Book.

Good Teacher: Man wants to do well, therefore he insists upon entering your employment that a competent teacher take him in hand, explaining the work and the one best way known to accomplish the work to be done by him.

Policy Book: A booklet issued by the management outlining the policy of the company towards its workmen, showing clearly what is expected of each workman and what the company offers in return.

Honest Treatment: That the recording department will be prompted only by honest methods when compiling the activities concerning him and all other workmen.

A Right to a Hearing in Case of Dispute: Too often foremen are allowed to discharge for minor causes, sometimes because the man does not carry favor with his foreman. The workman should be allowed to present his case and be judged after hearing all parties to the dispute, not before.

Labor succumbs to kindness when treated as man to man, and spoken of as such. Too often, however, we talk down at labor, in a parental way, when we should bring men along with us, and show by our action the high esteem in which we hold all our workmen. The human responsiveness to proper productive guidance and inspiration will lag until we talk to our workers as we would our banker. When seeking a loan you would not think of forcing your banker, nor would you force a customer who buys your merchandise. You would convince both of them that it is to their advantage to respect your wants.

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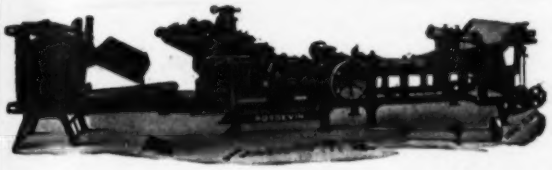
* National Association of Cost Accountants' Bulletin.

[1] Springfield Provision Co., Chicopee, Mass.

NEW **POTDEVIN** SACK

CEMENT BAG MACHINE



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CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Appleton, Wis.—The Fox River Paper Company, South Appleton street, is completing plans for the construction of a new addition to mill, to be one-story, equipped as a finishing department, reported to cost more than $70,000.

San Francisco, Cal.—The Consolidated Paper Box Company, 346 First street, has taken bids on general contract for the construction of a new addition to plant on Gilbert street, near Brannan street, to be three-story, reinforced-concrete, reported to cost upward of $100,000, with equipment. Hyman & Appleton, 68 Post street, architects. The Consolidated company was formed recently to take over and merge a number of local paper and paper box manufacturers, and has been developing plans for a general expansion program at different plants to provide for considerable increase in present rating.

Memphis, Tenn.—In connection with a proposed new five-story plant unit, the Plough Chemical Company, 121 South Third street, is said to be arranging for the installation of equipment for the manufacture of paper boxes and containers for the packing of its different products. The entire plant is estimated to cost more than $750,000. Hanker & Cairns, 123 South Court street, Memphis, Tenn., are architects; and Jackson & Moreland, 31 St. James avenue, Boston, Mass., are engineers.

Salem, Ohio—The Church Budget Envelope Company has work well under way on its new plant on Depot street, consisting of a one and two-story structure, and plans to have the unit ready for operations at an early date. It is reported to cost about $75,000, with equipment. Melvin E. Lutz, 333 Belleflower avenue, N. W., Canton, Ohio, is architect.

Stanton, Del.—The Ad-Tissue Company, Wilmington, Del., recently organized, is making ready for extensive operations at the former local mill of the Kiamensi Woolen Mill Company, recently acquired. Main structure will be remodeled and improved and necessary machinery installed. The plant will operate under a special process.

Philadelphia, Pa.—The Federal Container Company, 56th street and Paschall avenue, Philadelphia, has plans under way for the construction of a new addition to its paper board mill, to be one-story, reported to cost more than $75,000, with equipment. This company was lately acquired by the Paraffine Companies, San Francisco, Cal., and is now operated as a unit of that organization. Plans for the plant expansion are under the direction of the parent organization and are being drawn by Leland S. Rosener, 233 Sansome street, San Francisco.

South Brewer, Me.—The Eastern Manufacturing Company is arranging a construction program at its local mill, to include new buildings and certain alterations. Plans are under way for a one-story unit, 100 x 105 feet, to be equipped as a pulp dryer building, and for another addition, 27 x 30 feet, to be used as a digester plant. Cost of expansion has not been announced.

Monroe, Mich.—The Consolidated Paper Company, East Elm street, is arranging for the installation of equipment in its new storage and distributing plant unit, now well under way. The company will provide a complete system for handling of paper stock and other mechanical facilities, estimated to cost about $80,000, of a gross fund of more than $200,000 which has been allotted for the plant construction.

Richmond, Va.—Following recent award of general contract for initial unit of new addition to Mill No. 3, at the local plant of the Standard Paper Manufacturing Company, plans are maturing for the second unit of the expansion program and it is understood that bids will be asked at once for this building. Plans and details are also well in progress for machinery foundations and other equipment work, and entire project will be pushed to completion. Lee, Smith & Van Dervoort, Sixth and Franklin streets, Richmond, are architects. J. F. Ryland is vice-president and general manager.

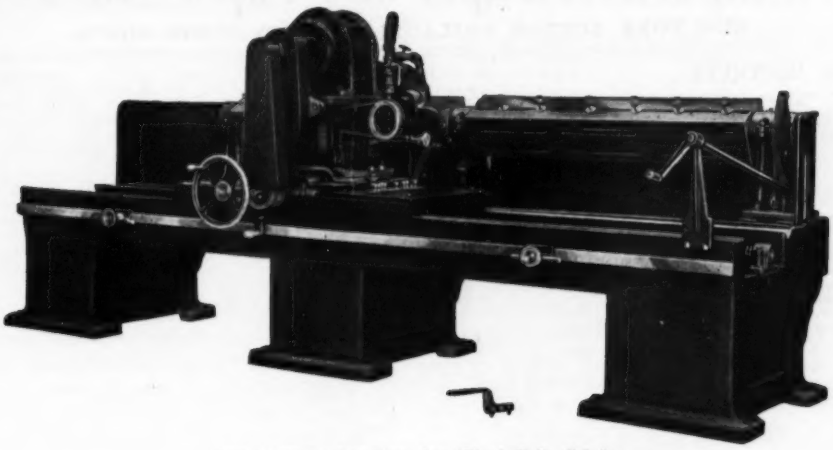
East Walpole, Mass.—The Hollingsworth & Vose Company, 333 Washington street, Boston, Mass., manufacturer of wrapping and other papers, has preliminary plans under way for the construction of a new addition to mill at East Walpole, consisting of main one-story unit, 35 x 225 feet, brick and steel, to be used primarily as a machine room, and two-story unit for general operating service. Entire project is reported to cost in excess of $125,000, with equipment.

Carrollton, Ga.—C. M. Tanner, Jr., P. O. Box 225, Carrollton, is at the head of a project to establish and operate a local plant for the manufacture of small paper boxes and containers suitable for the packing of hosiery and similar specialties. It is understood that a building will be leased and equipment installed at early date. A company will be organized to carry out the enterprise. Mr. Tanner, it is understood, is interested in receiving information and prices relative to proposed equipment.

Seattle, Wash.—The Pacific Straw Paper and Board Company, 2950 East Marginal Way, will proceed with superstructure for a new one-story mill unit, previously referred to in these columns, to be 20 x 100 feet, designed primarily for storage and distributing service.

Westfield, Mass.—The Old Colony Envelope Company is arranging for the immediate construction of proposed new additions to plant, consisting of four-story factory 70 x 200 feet, and four-story office structure 40 x 60 feet. General building contract has been let to the L. D. Phillips Construction Company, 10 Main street, Westfield. The work is reported to cost more than $175,000. Plans were drawn by Lyman Howes of the Strathmore Paper Company, Woronoco, Mass., who will supervise erection.

Sault Ste. Marie, Ont.—The Abitibi Power and Paper Company, Sault Ste. Marie division, Montreal, Que., is considering an expansion and improvement program at its local mill, and has general surveys in progress to perfect final determinations as to work to be carried out within the next few months. It is understood that the program will include the construction of new units, with improvements in several existing buildings, together with equipment installation to provide considerable increase in present capacity. The company has recently placed the No. 2 machine in service at this mill, and all four paper-making units are now in operation for the first time in a number of months. It is understood that present basis will be continued for an indefinite period. George R. Gray is vice-president.



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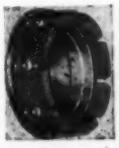

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NEW YORK IMPORTS

WEEK ENDING MAY 11, 1929

SUMMARY

Cigarette paper .....319 cs.
Wall paper .....9 pkgs., 30 bls., 26 cs.
Paper hangings .....2 pkgs., 45 bls., 26 cs.
News print .....2424 rolls, 17 bls.
Printing paper .....92 rolls, 166 cs.
Tracing paper .....1 cs.
Wrapping paper .....82 rolls, 157 cs.
Coated paper .....10 cs.
Baryta coated paper .....182 cs.
Surface coated paper .....301 cs.
Metal paper .....86 cs.
Photo paper .....7 cs.
Parchment paper .....16 rolls
Detail paper .....17 cs.
Writing paper .....12 cs.
Aluminum paper .....6 cs.
Stencil paper and ink .....74 cs.
Tissue paper .....132 cs.
Decalcomania paper .....74 cs.
Colored paper .....71 cs.
Drawing paper .....82 cs.
Filter paper .....62 bls., 151 cs.
Copy paper .....35 cs.
Fancy paper .....2 cs.
Envelopes .....8 cs.
Wood pulp paper .....13 cs.
Mould paper .....3 cs.
Sulphate paper .....434 rolls
Wafer paper .....8 cs.
Strawboard .....345 rolls
Miscellaneous paper ..181 rolls, 227 bls., 414 cs.

CIGARETTE PAPER

British American Tobacco Co., Majestic, Southampton, 50 cs.
Standard Products Corp., Ile de France, Havre, 115 cs.
S. Alexandre, Majestic, Southampton, 4 cs.
British American Tobacco Co., Brengaria, Southampton, 50 cs.

WALL PAPER

A. C. Dodman, Jr., Inc., Berengaria, Southampton, 3 bls.
Titan Shipping Co., Berengaria, Southampton, 1 cs.
Wedeman Godknecht & Lally, Reliance, Hamburg, 2 cs.
G. W. Sheldon & Co., Aquitania, Southampton, 3 cs.
Universal Car Loading Co., Pr. Harding, Bremen 1 cs.
F. A. Binder, Pr. Harding, Bremen 3 bls.
Universal Car Loading Co., Muenchen, Bremen, 5 cs.
J. E. Bernard & Co., Arabic, Antwerp, 9 pkgs.
F. J. Emmerich, A. Ballin, Hamburg, 16 bls, 3 cs.
Guaranty Trust Co., A. Ballin, Hamburg, 4 cs.
Globe Shipping Co., A. Ballin, Hamburg, 10 bls.
F. J. Emmerich, Minnewaska, London 1 ble.
J. E. Bernard & Co., Berlin, Bremen, 4 cs.
F. J. Emmerich, Majestic, Southampton 3 cs.

PAPER HANGINGS

Whiting & Patterson Co., Inc., Acquitania Southampton, 11 cs.
W. H. S. Lloyd & Co., Carmania, Liverpool, 3 cs.
A. C. Dodman Jr., Inc., Carmania, Liverpool 1 ble.
W. H. S. Lloyd & Co., Minnewaska, London 12 cs,. 45 bls.
A. C. Dodman Jr., Inc., Ile de France, Havre 2 pkgs.
A. C. Dodman Jr., Inc., Albertic, Liverpool, 8 bls.

NEWS PRINT

Parsons & Whittemore, Inc., Muenchen, Bremen, 844 rolls.
——, Malaren, Hango, 443 rolls.
Store Kopparberg Corp., Kungsholm, Gothenburg, 79 rolls, 17 bls.
Parsons & Whittemore, Inc., A. Ballin, Hamburg, 439 rolls.
Parsons & Whittemore, Inc., Berlin, Bremen, 189 rolls.
Perkins Goodwin & Co., Berlin, Bremen, 430 rolls.

PRINTING PAPER

E. Dietzgen & Co., Rotterdam, Rotterdam 14 cs.
International F'd'g Co., Rotterdam, Rotterdam, 17 cs.
P. C. Zuhlke, Muenchen, Bremen, 57 cs.
Keuffel & Esser Co., A. Ballin, Hamburg, 61 rolls, 2 cs.
P. C. Zuhlke, Berlin, Bremen, 3 cs.
Gallasgher & Ascher, Majectic, Southampton, 1 cs.
Keuffel & Esser Co., Reliance, Hamburg, 31 rolls
Happel & McAvoy, Reliance, Hamburg, 41 cs.
F. C. Strype, N. Amsterdam, Rotterdam, 5 cs.
C. Steiner, N. Amsterdam, Rotterdam, 26 cs.

TRACING PAPER

Keuffel & Esser Co., Reliance, Hamburg, 1 cs.

WRAPPING PAPER

E. Dietzgen & Co., Rotterdam, Rotterdam, 15 cs.
Arkell Safety Bag Co., Kungsholm, Gothenburg, 18 rolls.
J. P. Heffernan Paper Co., Kungsholm, Gothenburg, 11 bls.
A. Johnson & Co., Kunsholm, Gothenburg, 64 rolls.
Birn & Wachenheim, Arabic, Antwerp, 103 cs.
C. Steiner, A. Ballin, Hamburg, 38 cs.
Gimbel Bros., Reliance, Hamburg, 1 cs.

COATED PAPER

Pacific National Bank, A. Ballin, Hamburg, 10 cs.

BARYTA COATED PAPER

Globe Shipping Co., Pr. Harding, Bremen, 82 cs.
Globe Shipping Co., Berlin, Bremen 100 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Muenchen, Bremen, 25 cs.
W. Berch, Arabic, Antwerp, 10 cs.
Gevaert Co., of America, Arabic, Antwerp, 146 cs.
Brown Bros. & Co., A. Ballin, Hamburg, 13 cs.
Quality Art Novelty Co., A. Ballin, Hamburg, 22 cs.
P. C. Zuhlke, Berlin, Bremen, 83 cs.
Phoenix Shipping Co., Reliance, Hamburg, 2 cs

METAL PAPER

Hensel Bruckman & Lorbacher, Berlin, Bremen, 86 cs.

PHOTO PAPER

J. H. Schroeder Banking Corp., Pr. Harding, Bremen, 5 cs.
J. J. Gavin, Berengaria, Southampton, 2 cs.

PARCHMENT PAPER

General Electric Co., Reliance, Hamburg, 16 rolls.

DETAIL PAPER

Globe Shipping Co., Muenchen, Bremen, 17cs.

WRITING PAPER

Japan Paper Co., Aquitania, Southampton 2 cs.
S. Stern Stiner & Co., Aquitania, Southampton, 3 cs.
American Express Co., De Grasse, Havre, 2 cs.
American Express Co., MacKeesport, Havre, 3 cs.
Globe Shipping Co., Berengaria, Southampton, 2 cs.

ALUMINUM PAPER

Catty Foil Co., Pr. Harding, Bremen 6 cs.

STENCIL PAPER AND INK

Arlac Dry Stencil Co., A. Ballin, Hamburg, 106 cs.

TISSUE PAPER

Meadows Wye & Co., Carmania, Liverpool, 4 cs.
B. F. Drakenfeld & Co., Carmania, Liverpool, 6 cs.
F. C. Strype, Malaren, Hango, 27 cs.
Old Master Paper & Pulp Co., A. Ballin, Hamburg, 41 cs.
Old Master Paper & Pulp Co., Reliance, Hamburg, 50 cs.
W. J. Byrnes, Majestic, Southampton, 4 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Carmania, Liverpool, 39 cs. (Duplex)
L. A. Consmiller, Pr. Harding, Bremen, 10 cs.
L. A. Consmiller, Reliance, Hamburg, 6 cs.
C. W. Sellers, Reliance, Hamburg, 5 cs.
C. W. Sellers, A. Ballin, Hamburg, 11 cs.
C. W. Sellers, Muenchen, Bremen, 3 cs.

COLORED PAPER

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Universal Car Loading Co., Berlin, Bremen, 20 cs.
H. Lange, Berlin, Bremen, 2 cs.
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DRAWING PAPER

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Keuffel & Esser Co., A. Ballin, Hamburg 29 cs.
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H. Reeve Angel & Co. Inc., Minnewaska, London, 2 cs.

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A. Giese & Son, Majestic, Southampton, 31 bls.

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Whitfield Paper Works, Mako Maru, Kobe, 31 cs.
S. Risk & Bro., Mako Maru, Koke, 4 cs.

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Hensel Bruckman & Lorbacher, De Grasse, Havre, 2 cs.

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J. B. Mast & Co., C. Biancamano, Genoa, 8 cs.

WOOD PULP PAPER

J. Beckard & Co., Rotterdam, Rotterdam, 13 cs.

MOULD PAPER

Phoenix Shipping Co., Rotterdam, Rotterdam, 3 cs.

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Insight Paper Co., Bergensfjord, Oslo, 434 rolls

WAFER PAPER

W. L. Haas, Rotterdam, Rotterdam, 8 cs.

STRAW BOARD

A. Vuyk, Rotterdam, Rotterdam, 169 rolls.
A. Vuyk, N. Amsterdam, Rotterdam, 176 rolls.

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J. R. Livermore & Co., C. Biancamano, Genoa, 5 cs.
Japan Paper Co., C. Biancamano, Genoa, 10 cs.
American Express Co., Patria, Marseilles, 76 cs.
Borden Riley Paper Co., Patria, Marseilles, 66 cs.
Globe Shipping Co., Rotterdam, Rotterdam, 95 cs.
Steiner Paper Corp., Rotterdam, Rotterdam, 17 cs.
J. Beckhard & Co., Rotterdam, Rotterdam, 5 cs.
Japan Paper Co., Rotterdam, Rotterdam, 8 cs.
Hensel Bruckman & Lorbacher, Pr. Harding, Bremen, 10 cs.
Fuchs & Lang Manfg., Co., Pr. Harding, Bremen, 1 cs.
Tamm & Co., A. Merchant, London, 1 cs.
H. Reeve Angel & Co., Inc., Kungsholm, Gothenburg, 7 cs.
C. K. MacAlpine & Co., Kungsholm, Gothenburg, 204 bls.
R. Wilson Paper Corp., Cameronia, Glasgow, 34 cs.
Keller Dorian Paper Co., Il de France, Havre, 22 cs.
P. J. Schweitzer, De Grasse, Havre, 16 cs.
Devoe & Reynolds Co., De Grasse, Havre, 7 cs.
Titan Shipping Co., De Grasse, Havre, 4 cs.
C. Grimmer & Son, De Grasse, Havre, 4 cs.
Wilkinson Bros., Co., Inc., Berlin, Bremen, 23 bls., 181 rolls.
S. Gilbert, Berlin, Bremen, 26 cs.

RAGS, BAGGINGS, ETC.,

Lehr Manfg. Co., Ohio Maru, Oran, 522 bls. rags.
Bank of Manhattan Co., Ohio Maru, Palermo, 72 bls. bagging.
Bank of Manhattan Co., Ohio Maru, Messina, 44 bls. rags.
——, Cabo Santa Maria, Bilboa, 249 bls. rags.
W. Schall & Co., Patria, Marseilles, 76 bls. rags.
Guaranty Trust Co., Ida, Bari, 86 bls. rags.
Guaranty Trust Co., Ida, Bari, 49 bls. rags.
French American Banking Corp., Hellen, Barcelona, 68 bls. rags.
Chemical National Bank, Hellen, Barcelona, 88 bls. bagging.
The Barret Co., Hellen, Barcelona, 66 bls. rags.
E. J. Keller Co., Inc., Hellen, ——, 168 bls. bagging.
E. J. Keller Co., Inc., Hellen, ——, 31 bls. rags.
E. J. Keller Co., Inc., Hellen, ——, 36 bls. new rags.
V. Galaup, C. Gerolmich, Palermo, 92 bls. rags.
Castle & Overton, Inc., C. Gerolimich, Greece, 43 bls. rags.
E. J. Keller Co., Inc., Exermont, ——, 80 bls. rags.
Whaling Waste Products Co., Exermont, Genoa, 123 bls. cotton waste.
W. Schall & Co., Exermont, Marseilles, 68 bls. rags.
Katzenstein & Keene, Inc., Rotterdam, Rotterdam, 49 bls. rags.
American Woolstock Corp., Rotterdam, Rotterdam, 69 bls. rags.
A. W. Fenton, Inc., Pr. Harding, Bremen, 39 bls. rags.
A. W. Fenton, Inc., Sac City, Rotterdam, 105 bls. rags.
Ernst Mayer, Sac City, Rotterdam, 6 bls. rags.
Merchants National Bank, Sac City, Rotterdam, 69 bls. rags.
Overton & Co., Sac City, Rotterdam, 86 bls. rags.
E. J. Keller Co., Inc., Sac City,————, 65 bls. rags.
National Park Bank, Muenchen Bremen, 8 bls. rags.
Bank of the United States, Muenchen Bremen, 18 bls. rags.
B. D. Kaplan, Muenchen Bremen, 5 bls. rags.
A. W. Fenton, Inc., Muenchen Bremen, 50 bls. rags
Manufacturers Trust Co., Muenchen Bremen, 16 bls. rags.
B. D. Kaplan, Collamer Havre, 8 bls. rags.
V. Galaup, Collamer Havre, 283 bls. rags.
Castle & Overton, Inc., Collamer Havre, 90 lbs. rags.

(Continued on page 66)

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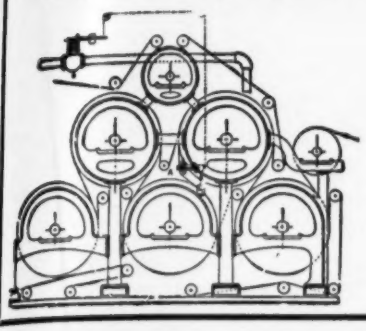

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Imports of Paper and Paper Stock

(*Continued from page 64*)

Van Oppen & Co., Collamer, Dunkirk, 80 bls. flax waste.
V. Galaup, Collamer, Dunkirk, 50 bls. rags.
International By Products Co., Collamer, Dunkirk, 199 bls. flax waste.
Amtorg Trading Co., A. Ballain, Hamburg, 100 bls. rags.
Phila. National Bank A. Ballin, Hamburg, 34 bls. rags.
Ernst Mayer, A. Ballin, Hamburg, 10 bls. rags.
E. J. Keller Co., Inc., A. Ballin, ——, 29 bls. rags.
J. Cohen & Sons, Carmania, Liverpool, 57 bls. rags.
Brown Bros. & Co., Minnewaska, London, 24 bls. rags.
Equitable Trust Co., Minnewaska, London, 72 bls. rags.
Gallagher & Ascher, Minnewaska, London, 17 bls. rags.
American Express Co., Cameronia, Glasgow, 9 bls. rags.
Anglo South American Trust Co., Cameronia, Glasgow, 55 bls. rags.
A. H. Searle, Inc., Cameronia, Glasgow, 70 bls. rags.
Brown Bros. & Co., Cameronia, Glasgow, 110 bls. rags.
W. Schall & Co., Cameronia, Glasgow, 43 bls. rags.
Phila. National Bank, Cameronia, Glasgow, 48 bls. rags.
Castle & Overton, Inc., United States, Copenhagen, 66 bls. new cuttings.
A. Kroigaard, United States, Copenhagen, 22 bls. rags.
E. J. Keller Co., Inc., Exiria, ——, 73 bls. rags.
Salomon Bros. & Co., McKeesport, Dunkirk, 75 bls. thread waste.
Salomon Bros. & Co., MacKeesport, Dunkirk, 37 bls. flax waste.
V. Galaup, MacKeesport, Havre, 66 bls. rags.
Castle & Overton, Inc., MacKeesport, Havre, 96 bls. rags.
D. I. Murphy, MacKeesport, Havre, 126 bls. bagging.
Darmstadt Scott & Courtney, MacKeesport, Havre, 180 bls. bagging.
Equitable Trust Co., Reliance, Hamburg, 15 bls. rags.
B. D. Kaplan, Reliance, Hamburg, 3 bls. rags.
Manufacturers Trust Co., Reliance, Hamburg, 43 bls. rags.
Darmstadt Scott & Courtney, Austvard, Barcelona, 114 bls. rags.
Bank of Manhattan Co., Austvard, Barcelona, 108 bls. rags.
Kidder Peabody Accep. Corp., Austvard, Barcelona, 28 bls. rags.
1st National Bank of Boston, Austvard, Barcelona, 95 bls cotton waste.
S. Birkenstein & Son, Austvard, Valencia, 107 bls. rags.
E. J. Keller, Co., Inc., Austvard, ——, 37 bls. rags.
A. W. Fenton, Inc., Austvard, Genoa, 10 bls. rags.
Equitable Trust Co., Austvard, Genoa, 28 bls. rags.
Guaranty Trust Co., Austvard, Leghorn, 91 bls. rags.
Overton & Co., N. Amsterdam, Rotterdam, 505 bls. rags.
Katzenstein & Keene, Inc., N. Amsterdam, Rotterdam, 297 bls. rags.
Anglo South American Trust Co., Austvard, Marseilles, 16 bls. rags.
National City Bank, Austvard Marseilles, 102 bls. rags.

OLD ROPE

S. Birkenstein & Son, Ohio, Maru Oran, 33 coils.
American Rag Trading Co., Cabo Santa Maria, Pasajes, 357 bls.
International Purchasing Co., Exermont, Genoa, 319 bls.
Brown Bros. & Co., Rotterdam, Rotterdam, 82 coils.
Brown Bros. & Co., Sac City, Rotterdam, 48 coils, 30 bls.
Brown Bros. & Co., Muenchen, Bremen, 82 coils.
Amtorg Trading Corp., A Ballin, Hamburg, 53 coils.
Brown Bros. & Co., United States, Copenhagen, 29 coils.
Castle & Overton, Inc., Cameronia, Glasgow, 40 coils.
Brown Bros. & Co., MacKeesport, Havre, 265 coils.
Brown Bros. & Co., Reliance, Hamburg, 25 bls., 37 coils.
Brown Bros. & Co., Austvard, Huelva, 345 bls.
E. J. Keller Co., Inc., Austvard, ——, 37 coils.
Anglo South American Trust Co., N. Amsterdam, Rotterdam, 57 coils.
Brown Bros. & Co., N. Amsterdam, Rotterdam, 73 bls., 10 coils.
Castle & Overton, Inc., Ammon, Germany, 3387 bls. wood pulp.
Castle & Overton, Inc., Tomalva, Holland, 170 bls. wood pulp.

CASEIN

Kalbfleisch Corp., Pan America, Buenos Ayres, 1334 bags.

WOOD PULP

M. Gottesman & Co., Inc., Ida, Sebenico, 6080 bls. wood pulp.
Scandinavian Pulp Agency, Inc., Malaren, Stockholm, 750 bls. wood pulp.
——, Muenchen, Bremen, 155 bls. sulphate.
Atterbury Bros., Inc., Bergensfjord, Oslo, 500 bls. wood pulp.
E. M. Sergeant & Co., Kungsholm, Gothenburg, 200 bls. sulphite.
E. M. Sergeant & Co., Kungsholm, Gothenburg, 898 bls. dry soda pulp.
Kidder Peabody Acep. Corp., Kungsholm Gothenburg, 42 bls. sulphate.
Perssons & Weidhorn, Arabic, Antwerp, 9 cases wood pulp.
Castle & Overton, Inc., A. Ballin, Hamburg, 5192 bls. wood pulp.
Castle & Overton, Inc., Ryndam Rotterdam, 10 bls. wood pulp.
Farmers Loan & Trust Co., United States, Oslo, 400 bls. wood pulp 50 tons.
E. J. Keller Co., Inc., United States, ——, 400 bls, wood pulp 50 tons.
——, Sudawsonco, ——, 1336 bls. wood pulp 200 tons.
J. Anderson & Co., Norefjord, Greaker, 2160 bls. sulphite.
Chemical National Bank, Norefjord, Tofte, 180 bls. sulphite.
Perkins Goodwin & Co., Norefjord, Greaker, 125 bls. sulphite.
Acer & Co., (Albany), Dago, ——, 1595 tons wood pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Malaren, Hango, 342 bls.
——, A Ballin, Hamburg, 243 bls.

WOOD FLOUR

State Chemical Co., Rotterdam, Rotterdam, 1220 bags.
B. L. Soberski, Bergensfjord, Frederickstad, 2625 bags.

PORTLAND IMPORTS

WEEK ENDING MAY 11, 1929

Lagerloef Trading Co., Malaren, Hango, 1250 bls. wood pulp.
——, Malaren, Hango, 15398 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING MAY 11, 1929

French American Banking Corp., Livenza, Leghorn, 91 bls. rags.
Union Bank & Trust Co., Exermont, Marseilles, 145 bls. old rope.
Tradesmans National Bank, Exermont, Marseilles,, 114 bls. rags.
D. I. Murphy, Exermont, Leghorn, 159 bls. rags.
E. J. Keller Co., Inc., Sac City, ——, 187 bls. bagging, 167 bls. rags.
J. A. Steer & Co., Sac City, Rotterdam, 179 bls. rags.
W. Steck & Co., Sac City, Rotterdam, 67 coils old rope.
Bank of Manhattan Co., Sac City, Rotterdam, 70 bls. rags.
Irving Trust Co., Sac City, Rotterdam, 72 bls. old rope.
Castle & Overton, Inc., Sac City, Rotterdam, 256 bls. rags.
S. E. Ingber, Sac City, Rotterdam, 261 bls. rags.
——, Sac City, Rotterdam, 200 bags wood flour 10000 kilos.
——, Sac City, Rotterdam, 1234 bls. rags.
E. M. Sergeant & Co., Norefjord, Oslo, 150 bls. wood pulp.
Chemical National Bank, Norefjord, Tofte, 2850 bls. sulphite.
J. Andersen & Co., Norefjord, Drammen, 1000 bls. sulphite.
Katzenstein & Keene, Inc., MacKeesport, Dunkirk, 1211 bls. rags.
D. I. Murphy, MacKeesport, Dunkirk, 311 bls. rags.
J. M. Hagy Waste Works, MacKeesport, Dunkirk, 47 bls. rags.
Hoffman Lions Mills Co., MacKeesport, Dunkirk, 23 bls. rags.
Union Waste Co., MacKeesport, Dunkirk, 73 bls. rags.
Darmstadt Scott & Courtney, MacKeesport, Dunkirk, 125 bls. rags.
Union Rag and Paper Exchange, MacKeesport, Dunkirk, 73 bls. rags.
Castle & Overton, Inc., MacKeesport, Dunkirk, 274 bls. rags.
G. Mathes, MacKeesport, Dunkirk, 56 bls. rags.
Salomon Bros. & Co., MacKeesport, Dunkirk, 22 bls. thread waste.
National Waste Co., MacKeesport, Dunkirk, 60 bls. thread waste.
F. Whitaker & Co., MacKeesport, Dunkirk, 6 bls. rags.
E. J. Keller Co., Inc., MacKeesport, Dunkirk, 82 bls, rags.
W. J. Jones & Co., MacKeesport, Havre, 19 cs. wall paper.
Castle & Overton, Inc., MacKeesport, Havre, 110 bls. rags.
V. Galaup, MacKeesport, Havre, 300 bls. rags.
Katzenstein & Keene, Inc., MacKeesport, Havre, 144 bls. rags.
D. I. Murphy, MacKeesport, Havre, 212 bls. rags.
J. M. Hagy Waste Works, MacKesport, Havre, 18 bls. rags.
G. Mathes, Mac Keesport, Havre, 21 bls. rags.
E. J. Keller, Co., Inc., MacKeesport, ——, 156 bls. rags.
E. J. Keller Co., Inc., Bellepline, ——, 12 bls. rags.
E. J. Keller Co., Inc., Lehigh, ——, 48 bls bagging.
E. J. Keller Co., Inc., London Exchange, ——, 53 bls. rags.
E. J. Keller Co., Inc., Ammon, ——, 634 bls. wood pulp.
Castle & Overton, Inc., West Eldara, Antwerp, 100 bls rags.
Castle & Overton, Inc., Bilderdyke, Holland, 369 bls. rags.
Castle & Overton, Inc., J. Skinner, Germany, 98 bls. rags.
Castle & Overton, Inc., Yone Maru, Antwerp, 150 bls rags.
Castle & Overton, Inc., Ammon, Hamburg, 5096 bls. wood pulp.
Castle & Overton, Inc., London Exchange, 215 bls. rags.
Castle & Overton, Inc., Hannover, Germany, 8 bls. rags.
Robert Blang, Austvard, Marseilles, 452 bls. rags
Chemical National Bank, Austvard, Barcelona, 225 bls. rags.
Union Bank & Trust Co., Austvard, Valencia, 279 bls. rags.
Banco Com'l Italiane Trust Co., Austvard, Leghorn, 166 bls, rags.
Guaranty Trust Co., Austvard, Leghorn, 312 bls. rags.
Interstate Trust Co., Austvard, Leghorn, 177 bls. rags.
Interstate Trust Co., Austvard, Genoa, 88 bls. rags.
Guaranty Trust Co., Austvard, Genoa, 244 bls. rags.

BOSTON IMPORTS

WEEK ENDING MAY 11, 1929

J. Andersen & Co., Malaren, Stockholm, 300 bls. sulphite.
——, Malaren, Hango, 6888 bls. wood pulp.
——, Sudawsunco, ——, 9293 bls. wood pulp 1543 tons.
Bulkley Dunton & Co., Norefjord, ——,400 bls. wood pulp.
Equitable Trust Co., Norefjord, ——, 600 bls. wood pulp.
Chemical National Bank, Norefjord, Tofte, 450 bls. sulphite.
Equitable Trust Co., Norefjord, Drammen, 750 bls. wood pulp.
Perkins Goodwin & Co., Norefjord, Drammen, 125 bls. sulphite.
——, Norefjord, Drommen, 200 bls. sulphite.
O. E. Kiaer, Norefjord, Greaker, 250 bls. sulphite.
Castle & Overton, Inc., Bilderdyke, Holland, 88 bls. rags.

NEWPORT NEWS IMPORTS

WEEK ENDING MAY 11, 1929

Castle & Overton, Inc., Tomalva, Holland, 679 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING MAY 11, 1929

Congoleum Nairn Co., Exermont, Genoa, 178 bls. rags.
Congoleum Nairn Co., Collamer, Havre, 687 bls. rags.
S. Shapiro & Co., Collamer, Havre, 1 cs. paper.
Katzenstein & Keene, Inc., Collamer Havre 79 bls. rags.
Congoleum Nairn Co., Collamer, Dunkirk, 783 bls. rags.
——, Sudawsonco, ——, 812 bls. wood pulp 110 tons.
Chemical National Bank, Norefjord, Tofte, 5400 bls. sulphite.
Equitable Trust Co., Norefjord, Drammen, 5200 bls. wood pulp.

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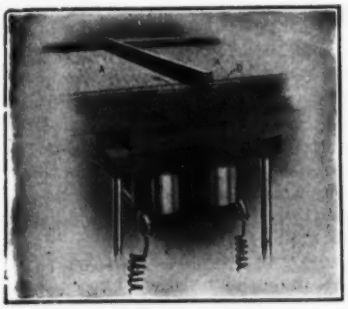
Are you making paper for insulating purposes? If so, our *Type B Iron Extractors* are a necessary part of your equipment.



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The name protects and guarantees you satisfaction.

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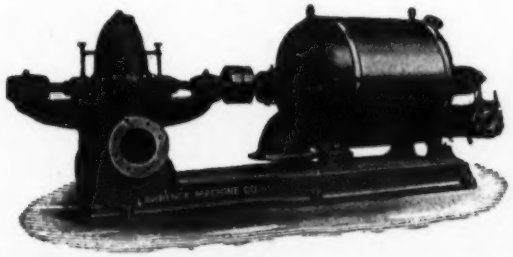

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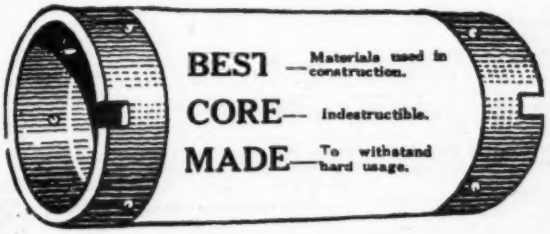
SHIPPING INSURANCE



Your two sources of supply are

Canadian Elixman Company
HAMILTON, ONTARIO

Elixman Paper Core Company
CORINTH, N. Y.

Paper Mill Stocks and Bonds

Quoted by Taylor & White, 45 Wall Street, New York City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	ASKED
Abitibi Power & Paper 5s, 1943	90	91
Abitibi Power & Paper 6s, serially to 1934	100	102
American Writing Paper 6s, 1947	81	87
Bastrop Pulp & Paper 6½s, 1940	103	105½
Bedford Pulp & Paper 6½s, 1942	97	100
Belgo-Canadian Paper 6s, 1943	100	103
British Columbia Pulp & Paper 6s, 1950	89	92
Brown Paper Mills Serial 6s, 1941	97	100
Brown Company 5½s, 1946	98	101
Bryant Paper 6s, 1942	98	101½
Canadian Paper Board 7s, 1937	97	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	95	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago, Debenture 6s, 1936	95	98
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	78	...
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	95	...
Champion Paper Corp. 6s, 1945	95	98
Container Corp. of America Debenture 6s, 1936, ex-warrants	101	104
Continental Paper Products 6½s, 1943	90	99
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	101	102
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	80	...
Donnaconna Paper 5½s, 1948	93	...
Eastern Manufacturing Co. 7s, 1938	97	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Orange Paper 7s, 1942	101	...
Fort William Paper 6s, 1946	100	104
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	100	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	94	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
Itasca Paper & Prairie River Power Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Power Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	83	90
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Paper 6s, 1941	105	108
Marathon Paper Mills Serial 5½s, 1942	99	101
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	97	101
Minnesota Ontario Paper Serial 6s, 1945	97½	100
Murray Bay Paper Serial 6½s, 1947	102	105
Munissing Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1928-42	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswego Falls Corp. 6s, 1941	99	102
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 5½s, 1947	98	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Queen City Paper 7s, 1933	98	...
River Raisin Paper 6s, 1936	98	100
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Maurice Valley Corp. 6s, 1945	101	104
St. Maurice Valley Corp. 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	102
Smith (Howard) Paper Mills 7s, 1941	104	106
Spanish River Pulp & Paper 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Tait Paper & Color Industries 6s, 1934	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	...
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
Union Bag & Paper Power 6s, 1932	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	102	...
Waterway Paper Products 6s, 1931	100	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	93
Whitmer-Parson Pulp & Lumber 8s, 1938	20	25
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd	9¼	10¼
American Box Board, Com	9¼	10¼
Am. Tissue Mills, 7% Pfd	90	93
British Columbia P. & P. Pfd	75	80
Brompton Pulp & Paper, 8% Pfd	100	...
Champion Fibre, 7% Pfd	108	110
Diem & Wing, 7% Pfd	92	97
Eastern Mfg. Co., 1st Pfd	55	...
Great Northern Paper, Com	75	78
Hammermill Paper, new 6% Pfd	100	...
Hinde & Dauch, Com	125	None Off.
Hinde & Dauch, 6% Pfd	102	None Off.
Holyoke Card & Paper	160	None Off.
Marathon Paper Mills, Com	150	...
Mengel Co., Pfd	102	104
Midwest Box Co., 8% Pfd	98	102
Midwest Box Co., 6% Pfd	95	99
Louis De Jongo Co., 7% Pfd	94	97
Oxford Papers, Com	195	...
Oxford Paper Co., Pfd	108	111
Penobscot Chemical Fibre, Com	80	...
Richardson Co., Com	170	...
Sabin Robbins Paper Co., 8% Pfd	105	110
St. Croix Paper	155	...
St. Regis Paper Co., 7% Cum. Pfd	105	108
Westfield River Paper Co., 1st Pfd	Wanted	None Off.
West Virginia Pulp & Paper Company	55	57
West Virginia Pulp and Paper, Pfd	100	107
Whitaker Paper, 7% Cum. Pfd	105	None Off.

TARIFF UNDER DISCUSSION

(*Continued from page 21*)

not large, but are heavy when compared with the output of the few mills which manufacture such paper.

In this paragraph occurs under the old act a real inequality, and the effect of the present tariff duty is to penalize the small competitors of a powerful and prosperous corporation without performing the function for which tariff protection is properly employed. Plain basic paper for photographic purposes is not produced in the United States at all, except by the Eastman Corporation for its own uses. The Eastman sells none to its competitors, and there is no reason why it should. The competitors import from Belgium, France, and Germany. Plain basic paper requires meticulous care in manufacture, intimate contact with the sensitizing plant, and the small quantities needed by the independent companies are not likely to stir even the most skilled producers of paper in the United States into production. Nearness to the customer is a great desiratum. There is an agreement at the present time between a paper company in New England and one of the independent companies in the making of photographic supplies in New York, for experimental collaboration looking to the possible manufacture later of the marketable unsensitized product. The tariff on plain basic paper for photographic purposes has therefore been reduced to a nominal 5 per cent ad valorem, so that if a small tariff duty is later found necessary, it can be adjusted within limits by the Tariff Commission. A small tariff adjustment is probably all that will be needed within a period that can not be foreseen.

Representatives of the skilled labor engaged in the lithographic industry and representatives of the manufacturers of lithographs in the United States appealed for higher rates of duty on lithographic material to establish a par between the cost of production here and abroad. Certain reasonable adjustments have been made in paragraph 1406, looking to this end.

The chief change in paragraph 1407 concerns so-called "papeteries"—writing, letter, or note paper, together with envelopes, packed or assembled in boxes or other containers and sold as a unit to the ultimate consumer. This conversion of paper into fancy boxes of stationery, with the increased use of labor and materials, is not adequately provided for in the old law.

All other adjustments are relatively unimportant.

Electrical Energy Output in New England

The New England Power Association, controlled by the International Paper and Power Company, reports that the output of electric energy of its properties in the first three months of this year was 12.6 per cent over the production in the corresponding period of 1928. This compares with an increase of 10.8 per cent in the output of all public utility power plants in the United States which has been reported by the United States Geological Survey.

In March, the production of electric energy by the New England Power Association was 12.0 per cent over that of March of last year, while the total production of the United States increased 10.6 per cent in the same period.

Industrial activity in the New England States during the first quarter of this year was maintained at a higher level than in any other first quarter on record.

Pulp Mill Knives for
Chippers
Barkers
Hogs
Shredders

Paper Mill Knives for
Washers
Beaters
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Jordans
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BED PLATES
Maintain straight, clean, square edges over their entire length—wear evenly—last longer.
Elbow—Triple angle, diagonal fibre drawing—Sharp rapid reduction.
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BOLTON QUALITY
Specialists in pulp and Paper Mill Knives For Twenty-Five Years

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This "Junior" screens 40 tons G. W. using .065 plates using but 15 H.P. The TRIMBEY-SHEVLIN "Senior" handles 80 tons with 25 H.P.

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Daily Capacity
525 TONS

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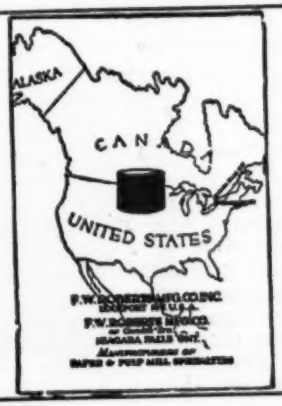
BURRS



BURRS

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, May 15, 1929.

Conditions in the local paper market during the past week were practically unchanged. Most of the various grades were in seasonal request while offerings were about sufficient to take care of prevailing requirements. Inquiries regarding future business are fairly numerous and the outlook for the immediate future is, at least, encouraging. Prices are holding to previously quoted levels.

Demand for news print is normal and the position of the industry is steadier than for some time past. Statistics gathered by the News Print Service Bureau show that during April the Canadian mills operated at 85.5 per cent of capacity and the United States mills at 81.4 per cent of capacity. Newfoundland mills operated at 102.3 per cent of capacity. Stocks in hand at Canadian and United States mills totalled 52,843 tons at the end of April.

The paper board market was rather quiet. Both production and orders fell off slightly last week. No further price changes were recorded. The fine paper market was moderately active with prices holding to schedule. Some improvement was noticed in the coarse paper market and wrapping paper is moving in better volume. Prices remain unchanged.

Mechanical Pulp

Steadiness prevails in the ground wood market. With production curtailed, offerings are not excessive, and prices are generally holding to schedule. Reports of shading are infrequent. The contract movement is well up to the average for the season and, with inquiries for the various grades fairly numerous, the outlook for the future is promising.

Chemical Pulp

The chemical pulp market continues in a sound position. Domestic and foreign producers are well sold ahead. Bleached sulphite and strong unbleached sulphite are still very firm, with offerings rather limited. All other grades are apparently holding their own. While the first open water shipments from abroad are due shortly, no radical price changes are anticipated at this time.

Old Rope and Bagging

Trading in the old rope market is quite active. Demand for both the domestic and imported varieties is persistent and prices are steady to firm. Mixed strings are moving in fair volume. The bagging market is practically unchanged. Most of the business transacted of late has been along routine lines. Prices are holding to schedule.

Rags

The domestic rag market is exhibiting a strong undertone. Cotton cuttings are in excellent request and white shirt cuttings are particularly active. Other grades of domestic rags are also moving in good volume. While the foreign rag market is rather quiet, offerings are limited and prices are steady to firm.

Waste Paper

Board mill interest in the lower grades of paper stock is more evident of late and the movement of supplies into consumption is gradually improving. No radical price changes have been recorded, however. The higher grades of waste paper are going forward in satisfactory volume and prices continue to rule steady and unchanged.

Twine

The twine market was moderately active during the past week. Demand for the various grades was mostly along routine lines, and, while there is keen competition for exceptionally large orders, prices therefore have been in most instances maintained at the same levels which have been in existence for some little time past.

9-POINT STRAW RULING

(*Continued from page 40*)

"The testimony further discloses that cardboard is the generic name for paper boards and that in trade and commerce that term embraces the various boards, which, on account of their color and appearance and the pulp material of which they are board, strawboard, chipboard, plainboard, red fibre board, embossed leather board, and so forth."

"Surely it is fair to assume that Congress was aware of the effect of the cited Court rulings when it enacted into law a provision for 'common paper-box board' in paragraph 320 of the Act of 1913; and it likewise had knowledge of similar judicial decisions holding as 'common paper-box-board' certain importations of strawboard which were used in corrugated fillers of boxes, and also shipment of pulpboard imported in rolls. Nor may it be denied that 'paperboard,' 'pulpboard' and 'cardboard' are generic terms which embrace all articles of the same general class, and that 'strawboard' is within that category.

Knowledge of Congress Presumed

"Likewise, it must be presumed that Congress had knowledge of the existence in trade of strawboard which measured less than 9/1000 of an inch in thickness; otherwise why the necessity for excepting it from the operation of paragraph 1302 for Tariff purposes in order to make it dutiable as paper. If such commodity were already paper its exception from that paragraph would be unnecessary as it would not have been covered thereby. But the natural corellary to the legislative action is that board of that thickness would be covered by that paragraph were it not specifically excluded and excepted therefrom.

"Similarly, paragraph 1302 serves the single exception made from all unlaminated paper boards, pulpboards, and cardboards, to wit, thus measuring less than 9/1000 of an inch. Boards under that measurement are for Tariff purposes made dutiable as paper and therefore excluded from paragraph 1302; all other unlaminated paperboards, pulpboards and cardboards remain in said paragraph. Such is the only logical implication and reason for the exception.

Plaintiff's Claim Sustained

"Counsel are to be complimented upon the very able and exhausted briefs with which the Court has been favored herein. From an examination of the authorized and careful consideration of the record as a whole, and a study of the official documents prepared for the use of the legislative Committee which might have a possible bearing in ascertaining the intent to Congress regarding paragraph 1302, we are satisfied that the strawboard in question is properly classifiable under said paragraph at the rate of 10 per cent ad valorem. That claim in the protests is therefore sustained and the judgment order will issue accordingly."

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Friction Calenders
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Successors to the Granger Foundry & Machine Co.

The Textile-Finishing Machinery Company
PROVIDENCE, R. I.

For reliable running and average long life

LINDSAY FOURDRINIER WIRES

are unsurpassed

We make them for the largest and fastest machines.

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Prompt deliveries made from stocks in
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Operated as a helpful service by Heller & Merz, Maintained for one purpose only . . . to be helpful to our customers.

It may be in matching shades . . . or making up a formula that will dye a required color . . but every one of the freely available services of this laboratory is help that you may need some day . . . or today.

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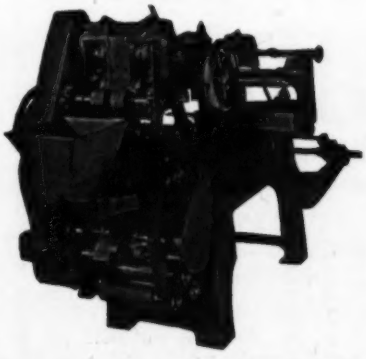

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Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, May 15, 1929.

BLANC FIXE.—The blanc fixe market was fairly active during the week. The contract movement was well up to average. Prices remain unaltered. The pulp is quoted at from $42.50 to $45.00 per ton, while the powder is selling at from 3¼ cents to 4½ cents per pound, in barrels at works.

BLEACHING POWDER.—Most of the business transacted in the bleaching powder market was routine. Contract shipments are moving at a normal pace for the season. Prices are generally holding to schedule. Bleaching powder is quoted at from $2.00 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—Demand for casein was moderately active. Prices remain unchanged. Domestic casein is quoted at from 16 cents to 16¼ cents per pound, while standard ground imported is selling at 16 cents per pound and finely ground at 16¼ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—The caustic soda market is in a sound position. Demand for this product is excellent and prices are steady. Solid caustic soda is quoted at from $2.90 to $2.95, while the flake and the ground are selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Some improvement was noticed in the china clay market. Contract shipments are going forward in good volume. Prices remain unchanged. Imported china clay is quoted at from $15 to $25 per ton, ship side, while domestic paper making clay is selling at from $8 to $13 per ton, at mine.

CHLORINE.—Steadiness prevails in the chlorine market. Demand is seasonal and prices are holding to schedule without difficulty. Chlorine is quoted at 3 cents per pound, in tanks, or multi-unit cars, at works, on standard contracts. The spot quotation ranges from 3¼ cents to 3½ cents per pound.

ROSIN.—The rosin market is slightly firmer. At the naval stores, the grades of gum rosin used in the paper mill are now quoted from $8.30 to $8.45 per 280 pounds, in barrels, ex dock. Wood rosin is selling at from $6.50 to $7.30 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—Conditions in the salt cake market are satisfactory. While the contract movement is heavy, there are no undue accumulations, and prices are steady to firm. Salt cake is quoted at from $16 to $18 per ton, while chrome salt cake is selling at from $14 to $15 per ton, in bulk, at works.

SODA ASH.—Trading in the soda ash market was active. Shipments against contract continue to move at an excellent pace. Prices are holding to previously recorded levels. Contract quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bags, $1.32½; and in barrels, $1.55.

STARCH.—No radical changes were recorded in the starch market. Paper mill demand for this product is well sustained and prices are holding to schedule. There is little talk of concessions around. Special paper making starch is quoted at $3.82 per 100 pounds, in bags, and at $3.99 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The sulphate of alumina market is exhibiting a strong tendency. Contract shipments are moving in good volume. Prices are unaltered. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.55 and iron free at $1.95 to $2.05 per 100 pounds, in bags at works.

SULPHUR.—Production of sulphur is being maintained in sufficient volume for current requirements. Sulphur is quoted at $18 per ton, in lots of 1,000 tons, on yearly contracts, and at $20 per ton for any smaller quantity over that period. On spot and nearby car loads, the quotation is $21 per ton.

TALC.—The talc market is practically unchanged. Contract shipments are going forward in a routine manner. Prices are holding to schedule, in most instances. Domestic talc is quoted at from $16 to $18 per ton, at eastern mines, while imported talc is selling at from $18 to $20 per ton, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
Book, Cased—		
S. & S. C.	6.00	@ 7.50
M. F.	5.75	@ 7.00
Coated and Enamel	7.50	@12.00
Lithograph	7.50	@12.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.35	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .80
Kraft	1.00	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	5.25	@ 5.50
Southern	4.25	@ 4.50
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

News, per ton—		
Rolls, contract	62.00	@ —
Rolls, spot	62.00	@ —
Sheets	67.00	@ —
Side Runs	47.00	@52.00
Boards—per ton—		
News	32.50	@37.50
Straw	52.50	@55.00
Chip	30.00	@35.00
Binders' Boards	65.00	@70.00
Sgl. Mla. Ll. Chip	42.50	@45.00
Wood Pulp	80.00	@85.00
65 Test Jute Liner	52.50	@ —
85 Test Jute Liner	55.00	@ —

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	28.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.75	@ 4.40
Easy Bleaching	2.90	@ 3.10
No. 1 strong unbleached	2.60	@ 2.80
Mitscherlich unbleached	2.60	@ 3.25
No. 2 strong unbleached	2.40	@ 2.50
No. 1 Kraft	2.40	@ 2.75
No. 2 Kraft	2.35	@ 2.50
Sulphate—		
Bleached	3.60	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.50
Mitscherlich	3.00	@ 3.25
Kraft (Domestic)	2.50	@ 3.30
Soda Bleached	3.25	@ 3.40
Sulphate Screenings—		
Coarse	.75	@ .95
Refined	1.65	@ 1.85

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	11.00	@11.50
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.50	@ 8.00
New Unbleached	11.00	@11.50
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Strictly Folded	.58	@ .63
No. 1 Mixed Paper	.45	@ .50
Washables	4.75	@ 5.25
Fancy	5.75	@ 6.25
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.15	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.90	@ 1.05

Foreign Rags

New Rags

New Dark Cuttings	2.50	@ 3.00
New Mixed Cuttings	2.75	@ 3.25
New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cuttings	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50

Old Rags

No. 1 White Linens	7.50	@ 8.25
No. 2 White Linens	5.75	@ 6.75
No. 3 White Linens	4.75	@ 5.25
No. 4 White Linens	3.00	@ 3.50
No. 1 White Cotton	5.50	@ 6.50
No. 2 White Cotton	4.50	@ 5.50
No. 3 White Cotton	3.00	@ 4.00
No. 4 White Cotton	1.90	@ 2.15
Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med. Light Prints	2.00	@ 2.10
Dutch Blue Cottons	2.25	@ 2.40
French Blue Linens	2.75	@ 2.85
German Blue Linens	2.35	@ 2.55
German Blue Cottons	2.15	@ 2.25
Checks and Blues	1.85	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.60	@ 1.65
Old Shopperies	1.55	@ 1.60
New Shopperies	1.50	@ 1.60
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, Heavy	1.60	@ 1.70
Bright Bagging	1.60	@ 1.70
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	4.50	@ 4.75
Domestic	4.75	@ 5.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, white, No. 1	3.25	@ 3.50
Hard, white, No. 2	2.40	@ 2.55
Soft, White, No. 1	2.50	@ 2.60
White envelope cuttings	3.00	@ 3.50
Flat Stock—		
Stitchless	1.60	@ 1.70
Overissue Mag.	1.60	@ 1.70
Solid Flat Book	1.50	@ 1.60
Crumpled No. 1	1.10	@ 1.20
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.70	@ 1.80
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.75	@ .80
Container	.55	@ .65
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.80	@ 1.90
News—		
No. 1 White News	1.65	@ 1.75
Blue Overall	7.50	@ 8.00
Strictly Overissue	.75	@ .80
Strictly Folded	.55	@ .60
No. 1 Mixed Paper	.42½	@ .47½
Common Paper	.30	@ .35

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Entire contents classified under separate headings for the United States and Canada, alphabetically and geographically arranged by states.

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Paper Stock and Rag Dealers
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Paper Box Manufacturers
Paper Wood Pulp and Chemical Fiber Mills of the United States, Canada, Cuba, Mexico and South America
Paper Specialties Manufacturers
Papeterie Manufacturers
Etc., etc., etc.

LOCKWOOD TRADE JOURNAL CO. 10 East 39th Street - Newyork, N.Y., U.S.A.

MAY 27 1929

Twines
(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.19	@	.21
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.16	@	.17
Fine Tube Yarn—			
5-ply and larger	.21	@	.25
4-ply	.25	@	.29
3-ply	.28	@	.32
Unfinished Indis—			
Basis	.13	@	.14
Paper Makers Twine Balls	.11	@	.12
Box Twine, 2-3 ply	.15	@	.17
Jute Rope	.17	@	.19
Amer. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.16	@	.18
No. 2 Basis	.14	@	.16
Sisal Lath Yarn—			
No. 1	.14	@	.16
No. 2	.12	@	.14
Manila Rope	.22	@	.24

CHICAGO

Paper
(F. o. b. Mill)

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.34
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¾	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04¾	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¾	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¾	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¾
Wood Tag Boards	.04¼	@	.06¾
Sulphite Screenings	.03	@	.03¾
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 Sheet	.07¼	@	.07½
(Delivered Central Territory)			
News, per ton—			
Rolls, contract	62.00	@	—
Sheets	67.00	@	—
Boards, per ton—			
Plain Chip	37.50	@	42.50
Solid News	47.50	@	—
Solid News	40.00	@	45.00
Manila Lined Chip	50.00	@	55.00
Container Lined—			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.20	@	2.25
White Env. Cuttings	2.40	@	2.50
No. 1 Soft Shavings	2.00	@	2.10
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.70	@	.75
Ledger & Writings	1.25	@	1.35
Solid Books	1.25	@	1.30
Blanks	1.40	@	1.50
Kraffts	1.60	@	1.75
New Kraft Cuts	2.15	@	2.25
Manila Envelope Cuttings	1.65	@	1.75
Ex. No. 1 Manila	1.30	@	1.45
Print Manila	.75	@	.80
Folded News (oversize)	.80	@	.85
Old Newspapers—			
No. 1	.65	@	.70
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.60	@	.65
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.06	@	.40
Ledgers	.09	@	.40
Writings—			
Superfine	.12½	@	.18
Extra fine	.18	@	.22
Fine	.17	@	.26
Fine, No. 2	.15	@	.25
Fine, No. 3	.10	@	.20
Book, M. F.	.05½	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.09½	@	.16
Coated Lithograph	.07	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.08	@	.09
Manila Sul., No. 1	.04	@	.05¼
Manila No. 2	.03	@	.04
No. 2 Kraft	.06	@	.06½
No. 1 Kraft	.06½	@	.07
Common Bogus	.03½	@	.04
(Delivered Philadelphia)			
News Print Rolls	62.00	@	—
Straw Board	52.50	@	75.00
News Board	35.00	@	40.00
Chip Board	32.00	@	40.00
Wood Pulp Board	85.00	@	95.00
Binder Boards—			
No. 1, per ton	75.00		
No. 2, per ton	70.00		
Carload lots	68.00	@	70.00
Tarred Felts—			
Regular	55.50	@	57.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.10½	@	.11
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07	@	.09
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable, No. 1	.04½	@	.05
Blue Overall	.07½	@	.08
Cottons—According to grades—			
Washable, No. 2	.03	@	—
New Blue	.03	@	.03¼
Fancy	.05½	@	.06
New Black Soft	.05	@	.05¾
New Light Seconds	.02½	@	.03
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.05½	@	.05¾
No. 2 Mixed	.04½	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08½	@	.09
New Black Mixed	.03¾	@	.04½

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.60
Domestic	1.75	@	—
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps—			
No. 1	1.50	@	1.60
No. 2	1.10	@	1.20
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White	2.50	@	2.60
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.85	@	1.90
Writing Paper	1.60	@	1.65
No. 1 Books, heavy	1.35	@	1.40
No. 2 Books, light	1.05	@	1.15
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.95	@	1.00
Container Manila	.85	@	.90
Old Kraft	2.25	@	2.50
Common paper	.50	@	.55
No. 1 Mixed Paper	.65	@	.70
Straw Board, Chip	.65	@	.70
Binders Board, Chip	.65	@	.70
Overissue News	.85	@	.90
Old Newspaper	.50	@	.55

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	3.75
White, No. 2	2.00	@	2.25
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.60	@	1.80
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.65	@	1.75
Repacked	.02½	@	.02¾
No. 2	1.30	@	1.35
No. 3 (Roofing)	1.15	@	1.25
No. 4	1.00	@	1.15
No. 5A	.75	@	.85
B	.65	@	.75
C	.65	@	.75

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	—	@	.06½
No. 2 Kraft	.05¼	@	.06
Common Bogus	.02	@	.02¾
Delivered New England points			
News Print Rolls	61.50	@	—
Straw Boards, rolls .009			52.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board	37.50	@	40.00
Chip Board	35.00	@	37.50
Single Manila Lined Chip	47.50	@	50.00
Single White, Patent Coated Newsboard Bender	65.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.40	@	2.50
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	1.50	@	1.55
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.05	@	1.10
White Blank News	1.60	@	1.65
Old Kraft	—	@	1.80
Print Manila	.80	@	.90
No. 1 Mixed Paper	.47½	@	.50
Overissue News	.65	@	.80
Old Newspapers	.50	@	.52½
Box Board, Chip	.55	@	.60

Bagging
(F. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.75
Manila Rope—			
Foreign	—	@	5.00
Domestic	5.00	@	—
Mixed Strings	.90	@	1.00
Jute Wool Strings	—	@	1.00
Scrap Burlaps	1.25	@	1.35
Scrap Sisal	1.60	@	1.80
Scrap Sisal for shredding	—	@	1.65
Wool Tares, heavy	—	@	1.37½
New Burlap Cutting	1.90	@	2.00
Australian Wool Pouches	2.75	@	3.00

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09½	@	.10
Silesias, No. 1	.06	@	.06¼
New Unbleached	.10	@	.10½
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06¼	@	.06¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.04	@	.04½
O. D. Khaki	.05	@	—
Corduroy	.03	@	.03½
New Canvas	.08	@	.08½

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Twos and Blues	2.75	@	3.00
Thirds and Blues—			
Repacked	2.50	@	—
Miscellaneous	1.75	@	1.90
Black Stockings	—	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.45	@	1.55
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags
(F. o. b. Boston)

Dark Cottons	1.60	@	1.65
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	5.10	@	5.50
New Checks & Blues	4.25	@	4.50
Old Fustians	1.90	@	—
Old Linsey Garments	1.85	@	1.90

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	13.25	@	—
No. 2 Coated and Litho	12.25	@	—
No. 3 Coated and Litho	11.50	@	—
Coated tinted	14.50	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

(Delivered Toronto)

News, per ton—			
Rolls (contract)	61.50	@	62.00
Sheets	67.00	@	—

Pulp
(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	60.00	@	—
Sulphite news grade	60.00	@	—
Sulphite, bleached	77.00	@	—
Sulphate	60.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk. News	1.60	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.85	@	—
Strictly Folded	.85	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.10	@	.10½
Fancy Shirt Cuttings	.05½	@	—

MAY 27 1929

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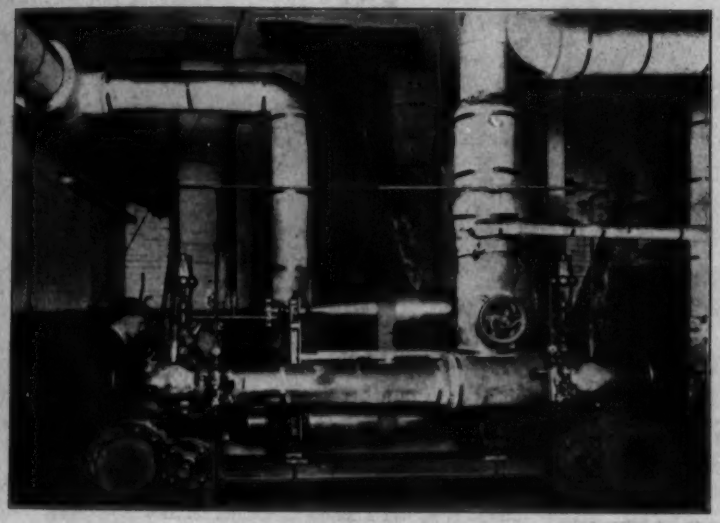


RHOADS
TANNATE
WATERSHED
LEATHER
BELTING

ANOTHER MILL "SOLD" ON RHOADS TANNATE

A MID-WEST PAPER COMPANY bought their first Rhoads Tannate Watershed Belt, a 12-inch double, in March, 1925. A few months later another drive was belted with a 10-inch double.

Soon after, remembering previous experience with these drives, both orders were duplicated, "for stock in case anything should happen." Not till December, 1928 was the 12-inch replaced, and the extra 10-inch is still in the stock room.

Near the time these two belts were purchased two other important drives were belted with Tannate, and later another. And a few months ago when a 24-inch heavy double was wanted for the main drive the Rhoads Tannate Watershed Belt pictured here was installed.

One Tannate Belt for trial, then one more, and two more, and three more, followed by a Tannate for the main drive. Such a record is a **concrete testimonial** of the real worth of Rhoads Tannate Watershed Leather Belting in paper mills.

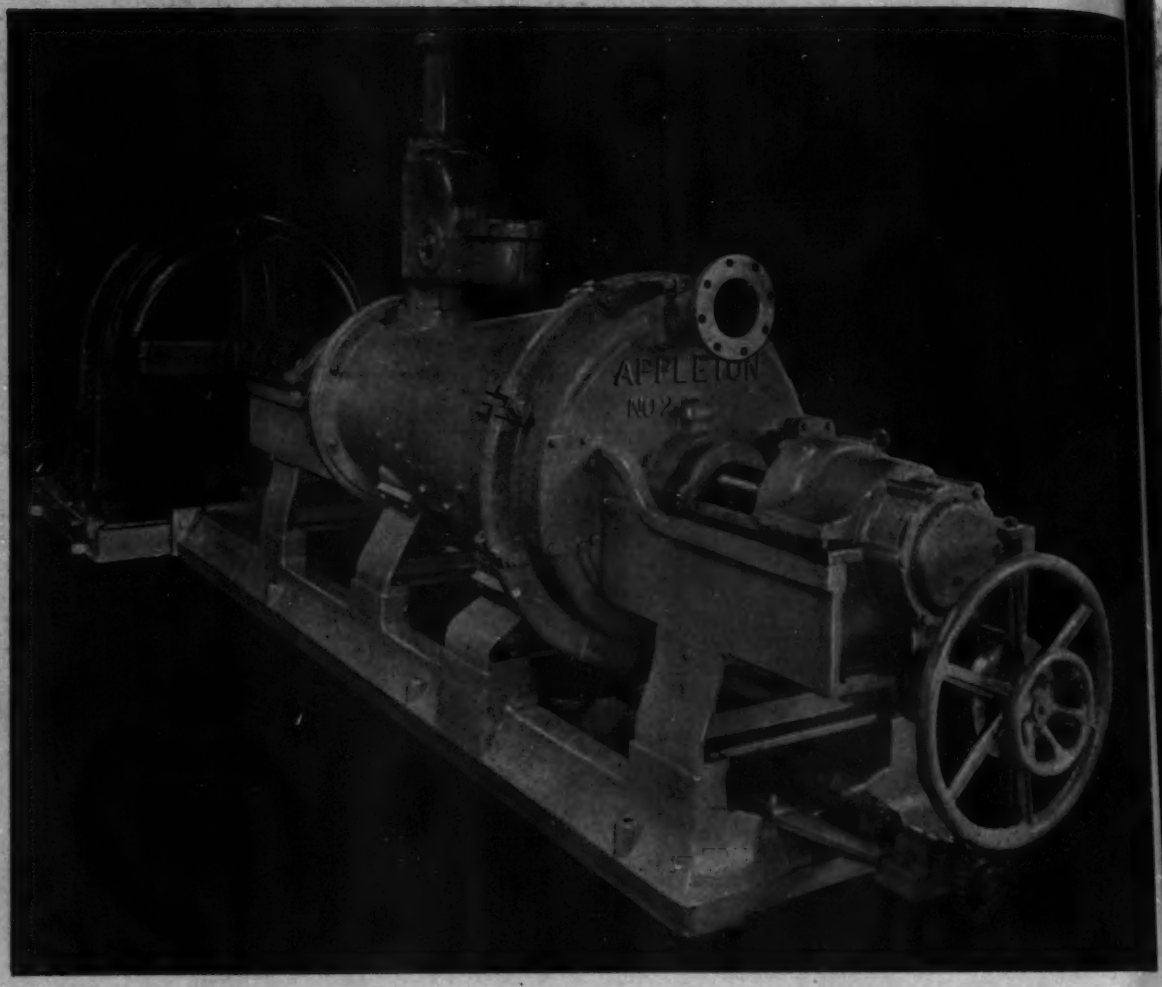
May we not send you one or more Tannate Belts to help reduce your costs and increase your profits?

J. E. RHOADS AND SONS

PHILADELPHIA: 37 N. SIXTH ST.

New York, 104 Beekman St. Chicago, 24 N. Clinton St. Atlanta, 70 Forsyth St., S. W. Cleveland, 1224 W. Ninth St.

FACTORY AND TANNERY—WILMINGTON, DELAWARE



An Economical Jordan

Of most importance to the maker of quality paper is the uniform refinement of the stock possible with the Appleton Ball Bearing Jordan. But improved Jordan performance means more than improved stock refinement. It means also material savings in power consumption, filling renewal, lubrication, maintenance and general operating expense. To this must be added the advantages of accurate control, absence of vibration and a wide range of adjustment. Accurate mill tests have shown that actual savings in operation have been around $1000 annually with the Appleton Ball Bearing Jordan.

The Appleton Machine Company

THE APPLETON BALL BEARING JORDAN . . .

Appleton, Wis.

Entered as second class matter August 12, 1925, at the Post Office at East Stroudsburg, Pa., under Act of Congress of March 3, 1879. ■ ESTABLISHED 1872 ■ FIFTY-SEVENTH YEAR ■ Published every Thursday by the Lockwood Trade Journal Co., at 34 N. Crystal St., E. Stroudsburg, Pa. EXECUTIVE AND EDITORIAL OFFICES: 10 East 39th Street, NEW YORK CITY. CHICAGO, 123 West Madison Street, Chicago, Ill.

Friction at this point can be very expensive.

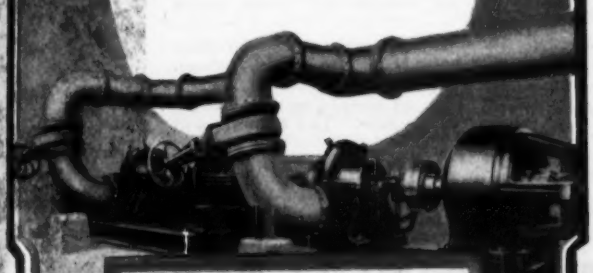
Solutions of Caustic Soda and similar chemicals will wash out the lubricant from ordinary packings that harden and cut the shaft.

CUTNO PACKING

carries in each separate strand a lubricant that successfully resists the cutting action of Caustic Soda and all alkali solutions.

To prevent the destruction of shaft friction use "Cutno" packing, that not only has an abundance of lubricant to overcome the usual shaft friction, but also resists the washing out tendency of the chemical solutions with which it comes in contact.

Let us send you a working sample to test out under your own conditions. State size of packing desired for test.



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Sole Manufacturers
109 Duane St. New York

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FIFTY-SEVENTH YEAR

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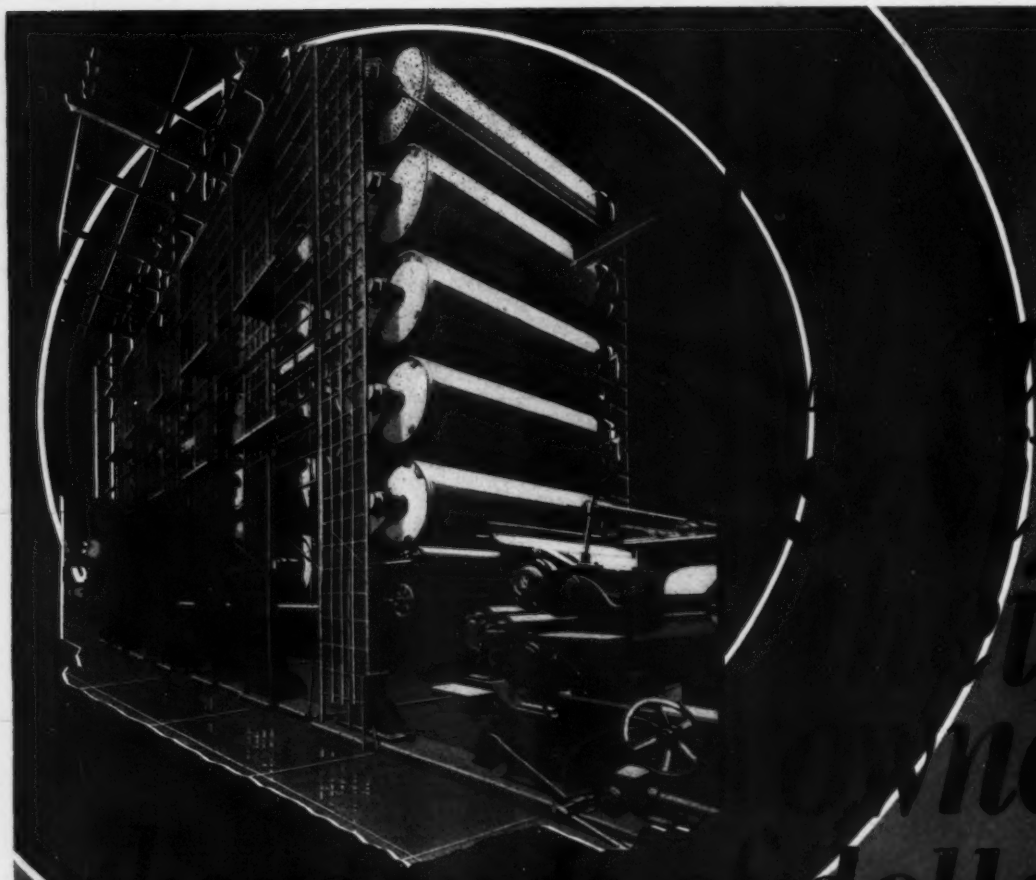

every year —

Vertical Dryers on all three machines at the Richardson Company, Lockland, Ohio.

This mill started with a "try-out" installation some twelve years ago. Since then they have equipped all three of their machines with Vertical Dryers.

They are operating today with a grand total of 232 rolls in Vertical order.

Obviously the Richardson Company is "sold" on Vertical Dryers—otherwise why would they make them standard equipment on all three of their machines?

The answer follows:

They were able to increase their drying capacity without taking over additional floor space.

They were able to eliminate the vapor pockets between the rolls, dry faster, dry more uniformly from edge to edge, and to do it on considerably lower steam pressure.

They were able to save money on their coal bills because of the reduced steam pressure required.

Have us figure on increasing the capacity of your dryer section. The benefits will soon pay the bill.

The Black Clawson Company—Operating Shartle Brothers Machine Co.
HAMILTON, OHIO MIDDLETOWN, OHIO

Export Office: 15 Park Row, New York City

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